

CANADIAN FRONTIERS OF SETTLEMENT

IN NINE VOLUMES

Edited by

W. A. MACKINTOSH AND W. L. G. JOERG

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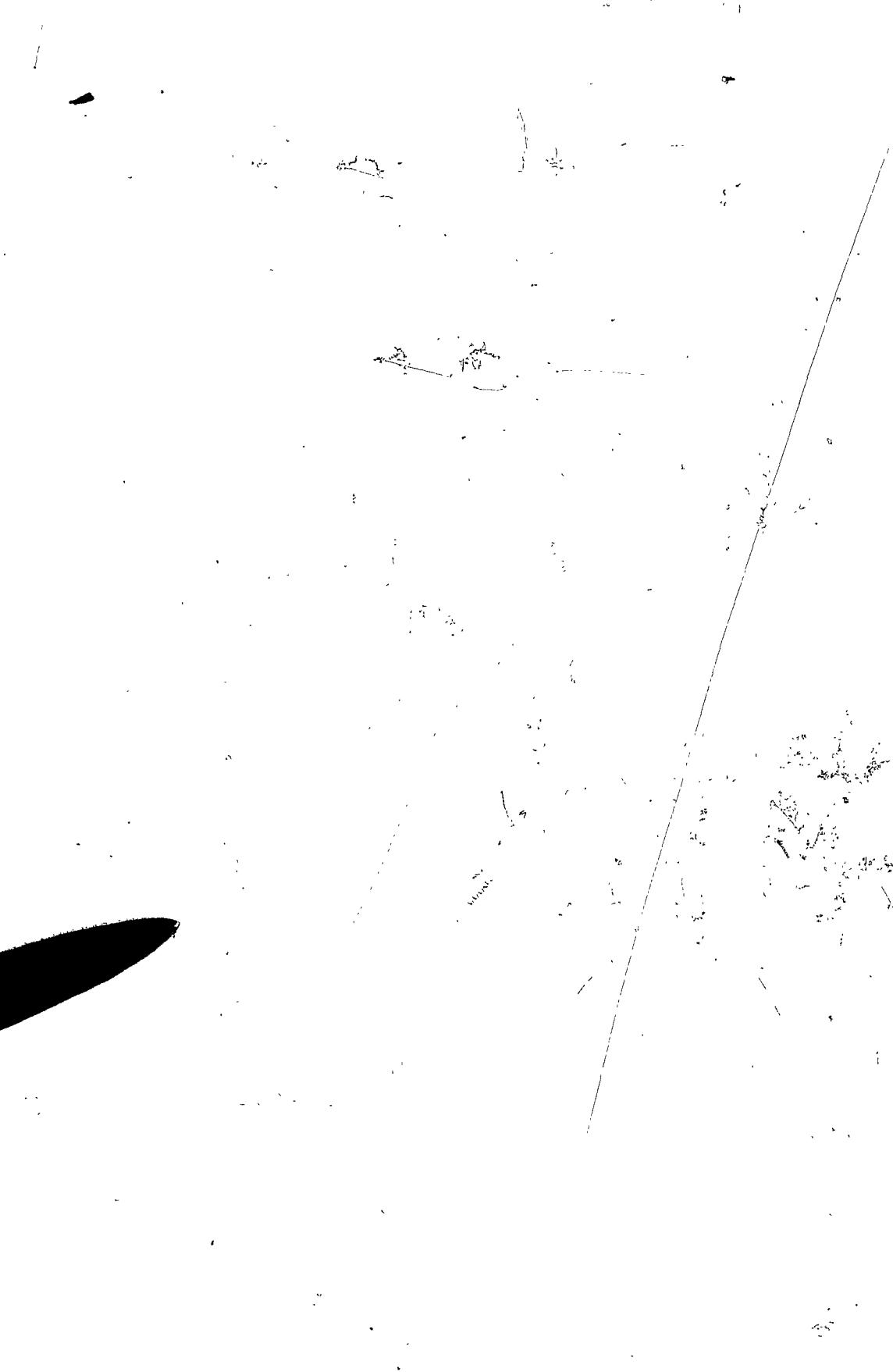
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VOLUME VI

THE SETTLEMENT OF THE
PEACE RIVER COUNTRY
A STUDY OF A PIONEER AREA



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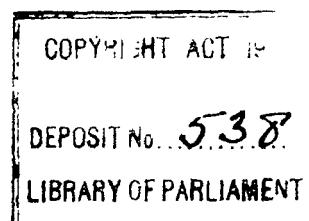
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FOREWORD

The Peace River Country is a sub-region of the great central plain of North America. Lying far to the north of other agricultural settlements, and having distinctive features of climate and soil, it is also an area of recent and contemporary settlement. But it is very much more than these. It is the present-day representative of that agricultural frontier which entered the central plain of North America in the late eighteenth century. In the Peace River Country, on a smaller scale and with differences appropriate to the conditions and knowledge of the present, the experience of the agricultural frontier is being recapitulated. The land-hungry, the chronic pioneers, the speculators, the foot-loose adventurers, the genuine settlers, these well-known figures of the frontier are there. The familiar historical occurrences of the premature or false beginning, the long wait for transportation facilities, the land-boom and its collapse, the early groping for suitable agricultural practices, the search for suitable products, the evolution of mature and stable settlements—these are contemporary history in the Peace River Country.

Professor Dawson's study fills an important place in *Canadian Frontiers of Settlement*. Because it recapitulates the history of grassland settlement, the Peace River Country furnishes an ideal "case" for study. Its frontier is not so extended that adequate knowledge of the whole could not be acquired. Separated from the rest of the Prairie Provinces, it has to some degree a regional life of its own, having not only its fringe but also its mature centres. It is as representative as one area could be of the settlement of the Prairie Provinces as a whole. In this volume are presented the results of a social and economic study of this contemporary "case" of settlement.

In the summer of 1929, Professor Dawson made a "reconnaissance survey" of the area. In 1930, with aid of Professors R. W. Murchie and W. A. Allen and of a party of assistants, he made a detailed survey of typical districts, and of nearly 400 farm families. Mature settlements, transitional districts, and the remote fringe of settlement were included. Where automobiles could not go, the investigators went by saddle and packhorse. Knowledge not

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only of the experience of individuals but of institutions and of communities was sought and found. In this volume are portrayed the changing lives of settlers and of communities as they pass through the stages of pioneering.

W. A. MACKINTOSH

PREFACE

The author of this volume was familiar with farm communities during his boyhood, and taught in a pioneer community in Central Alberta some twenty years ago. He spent part of the summer of 1929, and all of the summer of 1930 with a party of four research assistants in the Peace River Country. Since then, additional data have been obtained through communication with persons who live in this region. During the summer of 1930 the members of the survey were visited, and very much helped by Professor R. W. Murchie, then of Manitoba Agricultural College, and Professor Wm. Allen of the University of Saskatchewan.

The author wishes to express his appreciation of careful work done by the four assistant field workers, Glenn H. Craig, Hugh Wilson, and John Eaglesham of the University of Alberta, and H. L. Patterson of Manitoba Agricultural College. Since then, Glenn H. Craig and Eva R. Younge (graduates of the University of Alberta), have been associated with the author in the preparation of this volume. Without their aid its preparation would not have been possible.

Nor must one forget the hospitable reception and generous coöperation of farmers and town dwellers in the Peace River Country. They exhibited a keen interest in the project from the outset. May its results meet with their expectations.

The generosity, the vision, and helpful advice of W. D. Albright, Superintendent of the Government Experimental Station at Beaverlodge, deserve special mention. Furthermore, Mr. Albright has collected data throughout the many years of his residence in the region. This material he has generously placed at the disposal of those who have made this study.

The wise counsel of Professors J. H. Kolb and E. L. Kirkpatrick of the University of Wisconsin, and of Professors J. D. Black and C. C. Zimmerman of Harvard University has been most gratefully received. Professor Zimmerman spent some days with the field workers and supervisors in helping to prepare and explain the field schedules.

It has been most satisfactory to work under the general direction

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of Professor W. A. Mackintosh of Queen's University. His co-operation in this project, as well as that of the other members of the Canadian Pioneer Problems Committee is respectfully acknowledged.

C. A. DAWSON

CHAPTER I

THE LIFE CYCLE OF THE PIONEER REGION

The Nature of the Fringe

PIONEERS come and go, but pioneering remains. There are always some men who feel the urge to break new ground, create new structures, and experiment with new methods. They pitch their tents or build their shacks beyond familiar horizons. The typical pioneer, making a partial break with the past, experiences a period of risk and unsettlement. In its broad meaning pioneering takes place in old regions as well as new; venturesome beginnings may be observed everywhere. Perhaps the pioneer takes greater risks and receives his severest tests in the communities of his forebears rather than in remote regions of the world. Interesting as these comparisons might prove, the writer must restrict his discussion to the settlement and development of agricultural fringes of the type found in the prairie region of Western Canada.

All well-settled areas have their own constituent fringes of settlement where the struggle for existence is hazardous and experimental. But here the conditions of the older settlement pass over into the new almost imperceptibly. Thus, a study of the peripheries of older settlements would show pioneering in a partial light. Such fringes are too closely under the dominance of contiguous settlement to permit a clear-cut presentation of the agricultural conquest of the wilderness.

Pioneering conditions can be exhibited most clearly in the settlement of new regions which are isolated by extensive physiographic barriers. At this moment, pioneers are settling areas pocketed away from older settlements in northern Manchuria, Outer Mongolia, portions of Australia, South America, and Africa, sections of western and southwestern United States, and northern Canada.¹ Some sections of these regions have been sparsely settled for a long time; other areas are just experiencing the first rush of settlement; only in the distant future will the time be ripe for penetration into sections which remain untouched.

¹ Isaiah Bowman, *The Pioneer Fringe* (New York: American Geographical Society, Special Publication No. 13, 1931), p. 50.

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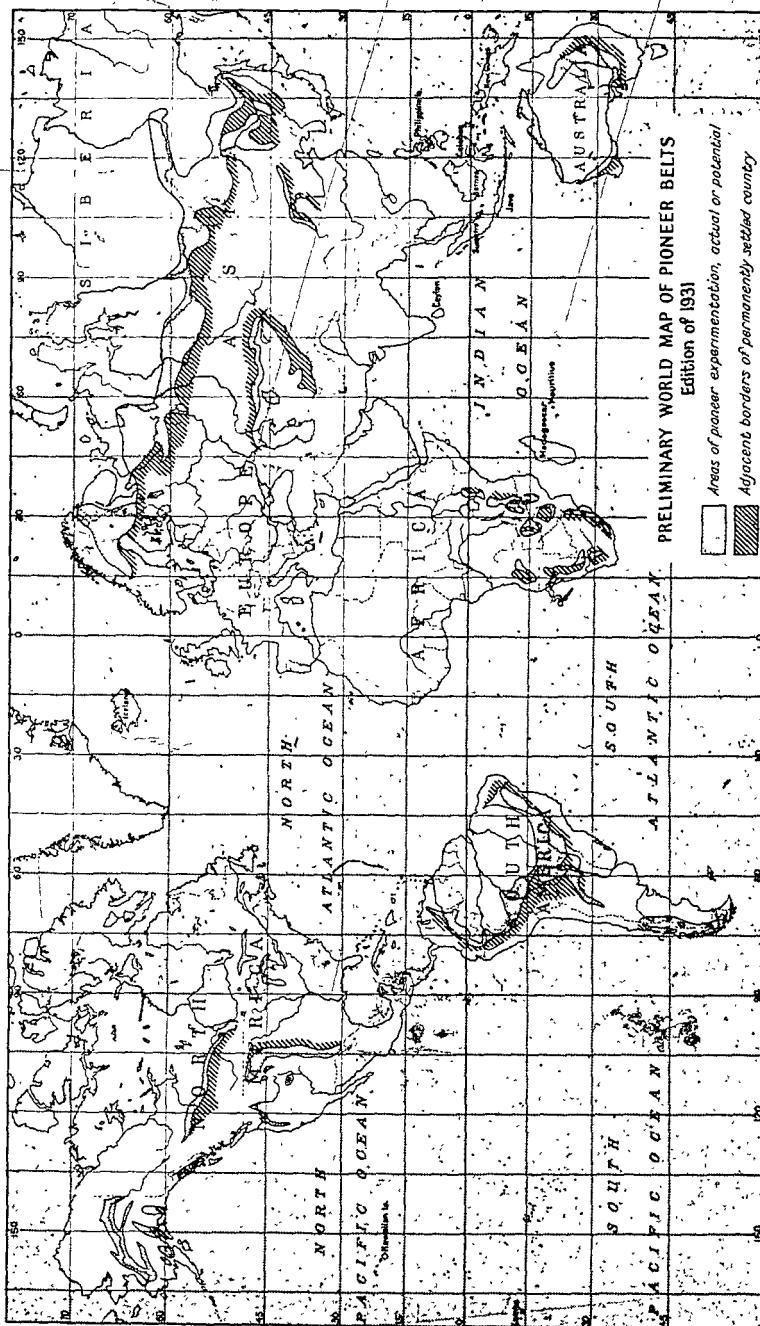


Fig. 1.—Reprinted by permission from Isaiah Bowman, *The Pioneer Fringe* (New York: American Geographical Society, Special Publication No. 13, 1931).

The fact that the settlement of many sections of these new regions is recent, or has not yet taken place, draws attention to the hazards of pioneering even with the aid of modern agricultural science and mechanical equipment. The most fertile and accessible portions of the earth's surface are occupied first. Then comes the peopling of the more hazardous and inaccessible areas. Mountainous barriers, swampy wastes, lack of transportation, difficulties of reaching world markets, low fertility, sparse rainfall during the growing season, frosts or insect pests impede the advance of settlement. One or more of these natural hazards has to be faced in most, if not all, present day pioneer regions.²

Even under the more favourable conditions of climate, fertility, and access to markets, the pioneer has to go through a period of un settlement and readjustment. He has to wait for neighbours, roads, railroads, hospitals, schools, and churches. The pioneer sacrifices much now that he may gain more when he and his neighbours have mastered not only the conditions of climate and soil but also the emptiness of the open spaces. The future is for him, or at least, for his children. In any case, he has made a fresh start which has carried him out of old grooves. This new situation, which attracts so large a proportion of the young and vigorous, induces an intense application of their productive energy. Thus, frontier regions, during the periods of their active settlement, impress the observer with their freshness, creativeness and hopefulness.

It is on man's initial entry into a new region that physiographic obstacles are most deterring. Men accommodate themselves to these forces and only after a long exploratory period do these yield, in part, to human inventiveness. The early explorers as well as the first settlers pierce the wilderness along the natural water highways, through valleys and across the more open plains. Mountains, marshlands, and unbroken forests are almost insuperable barriers at the outset. Their conquest comes later.

The development of a typical agricultural region passes through certain successive stages, each of which is organically linked with its predecessor and prepares the way for its successor. This life cycle may be divided into four major stages: (1) The outpost settlements; (2) the isolated agricultural settlements; (3) the integration of agricultural settlements; (4) the period of

² *Op. cit.*, and *Pioneer Settlement* (New York: American Geographical Society, Special Publication No. 14, 1932), *passim*.

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centralization and regional autonomy. These four main divisions are not mutually exclusive, but they are representative points on the main trend in the progress of settlement.

1. *The Outpost Settlements*

New lands are found and possessed by adventurers, professional explorers, traders, soldiers, and missionaries. Which of these personages is the first to appear on the scene is a matter of accident. In time several of them join forces in fortified or unfortified outposts at strategic points on the natural transportation routes in the new region, as witness the trading posts and missions strung along the waterways of North America during the past three centuries. The struggle for livelihood is focused upon the search for precious metals, hunting, trading, and eventually, if conditions allow it, large-scale ranching. In areas suitable for intensive farming few of the original occupational activities remain except as sporting interests. The original occupants are dispensed, and many of them migrate to new frontiers.

These outpost settlements have less communication with each other than with distant market centres. These small centres are hedged about by the expanse of wilderness in which native peoples follow their migratory pursuits. Gradually, the interests of the outpost trader meet and merge, not always peacefully, with those of the natives. These outposts possess a scanty population made up mostly of males. Settlements of this type contain picturesque individuals—the marginal personages who moved on from the restrictive conventions of well-established communities in search of a freer *milieu*. They work hard, drink hard, and fight hard. The isolation of the outposts enhances their colourful personalities. In some degree all those personal types who select the outposts of civilization as their theatre of activity reflect a lack of *rapport* with the ways of life in their original communities.

Centres of this type are considered unfit for white women and their children. Such an abnormal distribution of white population with its absence of normal family life makes for natural alliances between white males and native women. The children of such unions do not create a social problem until the later surge of settlement takes place. Then all such close social intercourse is frowned upon, and the progeny of mixed blood lose status with both white and native elements. They tend to become social

misfits who make hazardous the evolution of moral sanctions in the era of expanding settlement.

Outpost centres develop their own appropriate forms of social organization, springing in part from the traditions of their inhabitants and, in some measure, an outgrowth of the frontier situation. The outpost's commercial emporium is not only a place where goods are sold or exchanged, but it also performs administrative functions in the absence of special governmental agencies. It is, furthermore, a place of informal social gatherings where settlement gossip and fragments of news from the outside world are eagerly sought—not infrequently it is the scene of hilarious and ribald social activities. When present, the mission in addition to its specific religious duties serves as an educational, health, and social welfare agency. Thus, social organization is simple and relatively unspecialized. Social relationships are elementary and personal, and so they remain until the struggle for existence is modified by the entry of a new and disturbing factor.

2. *The Era of Isolated Agricultural Settlements*

Agriculture makes its first entry at the outpost as a subsidiary industry catering to the very limited local market. Farms are close to the posts and are little more than large gardens. Looking toward the future, these initial agricultural attempts indicate that certain articles may be produced with success. Prospectors, traders, and missionaries travelling to and from the outposts tell of the grasslands and growth of cereals, and thus draw attention to the agricultural possibilities of the region. The stories of the miners started the land seekers' rush to the fertile Oregon valleys. Thus the trails which lead to the outposts point the way for agricultural settlement.

On the grassy western plains which extend from Texas to the southern edge of the northwestern forest in Canada, the cattlemen, except in limited river-valley areas, were the first to make an extensive use of the land. Their operations, in such areas, are the natural link between the typical outpost settlements and the more permanent forms of agriculture which displace the cattle range wherever rainfall is sufficient for the growth of cereals. In many instances the old trading posts, while continuing on a diminishing scale their old activities, find an added importance in catering to the wants of these newcomers. In isolation they

live in the midst of their thousands of acres of ranchland. New cattle-towns emerge to supplement the far-flung outposts of other days. While more dependent on the railway than the fur trader and his allies, the rancher carries on at a great distance from the shipping point because his product can, in some measure, provide its own transport. Population density remains low. Women and children are few indeed, and the male population is mobile and colourful. Owners control large herds which continue to move to and fro over a wide feeding area. Small operators gather ranch-hands round them and develop the technique for handling cattle.

This mode of exploitation calls for its own particular elements of culture and social organization. By tradition, at least, we have become familiar with the cow-pony, the stock-saddle, the chaps of leather or fur, the high-heeled, long, leather boots, the lariat, the colt revolver, the bright-hued bandanna handkerchief, and the stampede. All these are the products of the roaring life on the range. In America they were developed in the southwestern United States and were diffused northward to the Canadian Northwest.

The widely separated posts and cattle-towns are centres of trade and of a limited but somewhat disorderly social life. The free and individualistic life of the range, where men tend to be a law unto themselves, produces a state of insecurity in respect to property and life. Slowly but surely forms of social organization develop and bring a modicum of social control to such situations. Branding irons are used to facilitate the identification of property and, in the absence of an effective local government, agencies like the round-up, the ranchers' association, and the stock detectives emerge as measures of protection against unscrupulous cattlemen and outlaws. The long arm of the law at last becomes effective at this stage of frontier development by means of the mobile mounted policemen, with headquarters in special post towns. The protective efficiency of the Texas Rangers and the Royal North West Mounted Police has become widely known.

In regions where cereals can be successfully cultivated the days of the cattlemen are numbered. Even when his operations are at their height, the river-valley farmers penetrate his territory. The invasion turns into a rush when railway rumours focus attention on a particular area. With the entry of the railway the rush

becomes a mad scramble of the land-hungry from very remote regions. The cattlemen are forced farther and farther back, and, at length, retain only those areas unsuited to a settled agriculture. Over and over again this story has been repeated in the settlement of successive areas of the Great Plains Region. The approach of the railway makes farm land in fertile sections too valuable for the cattle rancher's purposes. The day of the small landholder is at hand.

The expectation of transportation facilities has to be strong if it is to lure the farmer from the old lands and from the river borders in the new regions. Lack of present means of transport and the presence of many physiographic barriers, such as marshes, hills, gravel ridges, and uncleared bushlands, retard this type of settlement expansion. Nevertheless, the appeal of cheap or free land and of promised or expected roads and railways are among the powerful motives which make the land-hungry march into fringe areas. Surveyors may try but they rarely succeed in keeping ahead of the land rush when its forces are set in motion. The rights of the squatter have become customary, and, when the rectangular lines are marked by surveyors' stakes, he is allowed to choose land which approximates closely the holdings on which he has squatted. Such is the drift of settlement.

At the outset farmers settle the most accessible, fertile, and tillable portions of the region.—Those who are the first to settle on the land sell their surplus products to the newcomer. In time this process gives rise to a regional pattern of settlement in the form of scattered communities, which are often separated from each other by wide stretches of unsettled land. Each community lives to itself and works out its destiny as best it can with the aid of initial capital, periods of work outside, the surplus cash of the more recent settlers, and the promises of things to come. This is the period of marked isolation—the isolation of community from community and of neighbour from neighbour.

Settlers utilize the business centres of the cattlemen and earlier traders. Ordinarily these are too distant to be reached except at infrequent intervals. Meanwhile, the farmer adds a new type of centre at the cross roads within his own local community which develops into the rural commercial village. Scattered about this village, other cross-road centres arise close to their constituent farmsteads. These centres are unspecialized, carry on a general trade

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within their localities, and have little to do with each other. They are nearly as much alike as were the model T Fords. Such are the focal points in newly-settled agricultural areas.

The population is still largely male. The early settler is a bachelor or one who has left his family behind until he has carved out some kind of home in the wilderness. The struggle for life is hard, the conditions experimental, and there are retreats as well as advances. Many enter but only a small proportion remain as permanent settlers.

Yet in such communities women soon arrive. In many instances they accompany their husbands, brothers or fathers, if distances from the older communities are not too great. The more rugged and mobile types of frontiersmen enter these raw new lands. They bear a resemblance to the men of outpost days, for they have come from a wide range of occupations, regions, and ethnic groups. Among them are to be found a large sample of those restless, picturesque, and striking personalities who are the chronic pioneers. They move on to new fringes as soon as a more stable society threatens their unconventional mode of existence. The advent of the female homemaker is for such the handwriting on the wall. Women and children initiate the types of social organization with which we have become familiar in areas of agricultural settlement in America in general and in the Great Plains Region in particular.

The original settlers in farming areas remote from the railway mark time until transportation facilities reach their communities. Their first buildings, somewhat crude and rough, are erected. Bit by bit the ground is cleared, broken, and prepared for seeding. Products for the table are the first to be grown, especially if the homemaker has arrived. Grains are grown and fed to cattle which are driven to a distant shipping point. If the price of cattle is low, and it very often is, the settler is in a difficult position, for he must have the means of purchasing needed supplies. These are the days of struggle with nature, lack of facilities, lack of capital, and isolation from the larger world outside.

The cross-roads store is a focus of social life as well as supply station and a credit agency. It serves, also, as a post office, a telegraph station, as the centre of local news, and as a place where neighbours meet most frequently. In an informal way the store performs many of the functions of a social club in the early days

of farm settlement. The first public buildings are, very often, the roughly-built school-houses, which are gradually distributed throughout the community as determined by the number of children and the distance they may be expected to walk. Such buildings are used for education, religious services, farmers' meetings, dances, socials, and concerts. Permanent church organization is established very slowly in new areas. The school, too, may lag behind, and there are many instances where the children are far beyond the school age before their school life begins. Factions object to school taxes or they disagree on the location of the school building. Good roads come slowly; few travel beyond the local community except freighters and mail carriers. Social life, informal and neighbourly, manifests only the crude beginnings of social organization. With the advent of women, there are parties, dances, and occasional celebrations as time and season may allow. Except for neighbourly contacts at the store and, infrequently, at the school when it arrives, social amenities are restricted mainly to visits to the very few neighbours who live nearby. While contacts may be few, neighbourly kindness and hospitality rank high in frontier agricultural settlements.

But such communities do not reach productive efficiency, show much division of labour in their economic and social life, nor rise above a low standard of living, until the railway gets within at least twenty miles of their farm population. Its advent is awaited many years. To many communities, the railway, or a substitute for it, never comes.

3. The Integration of Agricultural Settlements

One day in the distance, smoke and dust clouds rise, move slowly but constantly toward the settler's land, and he knows, at last, that the railway is at hand. To him and his neighbours it means everything, including mortgages. For the many who could not wait, or for others who refused to mark time for years on the raw outer edge, this day never comes. They made their sacrifices without avail. The building of the railways and trunk roads gives work to local settlers, enlarges their local produce market, and puts more money in circulation. The railway connects the local community with the world market, acts as a real stimulus to agricultural productivity, speeds up the whole process of settlement, and breaks up the old regime of isolated communities.

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These steel rails may disturb existing administrative boundaries, arbitrarily move existing town sites, but they are at hand. Forward they move through unsettled tracts to other communities, but always far ahead there is a new outthrust of settlement. Railway stations with their nearby grain elevators or other shipping facilities are located at regular intervals. Here are made available specialized business units, professional services, and other institutions. These centres become incorporated towns with local governments. At last the farmers have trade and social centres which cater to a rising standard of living. Out from the railway on either side, on poor as well as on good land, the fringe of settlement advances. Settlers penetrate the vacant spaces until the human link between the isolated communities of the pioneers is complete. Under the stimulus of the trade centres which seek an improved highway to the door of every potential customer, in response to farmers' agitation, and by means of governmental subsidy, road allowances are turned into roads. This network of railway and highway lies at the base of a new order of commercial and social life. The integration of isolated settlements proceeds with haste.

The building of railways and highways changes the stream of migration, in that it includes an increasing number of family groups and increases the marriage rate of the bachelor landholders. The sex ratio tends to approach that of the established rural areas. The age grouping of the population is concentrated in the middle years (Fig. 35). A much larger percentage of farmers with an agricultural background is soon in evidence. The others conform to the permanent settler type, or move on to the freedom of a new fringe. The informality and spontaneous hospitality of the earlier days of grim struggle are on the wane.

Much of the indigenous social life of the earlier periods remains. It is absorbed in the programmes of the more formal and specialized institutions, which are now more heavily subsidized from the outside and galvanized into a new efficiency to satisfy the educational, political, religious, and recreational interests of a people whose economic success seems well assured. Many of these organizations were there before this new era of transportation development, but in most instances they were only half there. They, too, were marking time.

While schools, halls, cross-road stores, and little hamlets continue to exist away from the railway, the new travel facilities lead folk

past them to the shipping centres for the satisfaction of their more specialized commercial, legal, medical, and other institutional services which require a larger constituency than a small agricultural neighbourhood can afford. Doctors, ministers, lawyers, high school teachers, nurses, agricultural technicians, and social organizers have their headquarters in these railway towns. School-houses and open-country halls are used as preaching stations, and for holding meetings of a very restricted local interest. The shipping towns, even though small, are the real centres of the organized life of the larger area tributary to them. Although the informal neighbourhood life centring in school, hall, and home continues, interest and participation in the life of these towns grow rapidly. Through the medium of the shipping town, notions from the more remote urban centres find lodgment in the minds of the members of the farm family. More and more within their own autonomous region develop those larger centres in which the family group may see exhibited in larger measure urban devices and urban ways of living.

4. *The Growth of Regional Centralization*

With the entry of the railway, shipping towns are strung along it like beads on a string. The "end of steel" towns have their boom days but, when the railway moves on, they fall back to the position of other towns along the line. In such a position the town remains unless it is specially favoured by the extent and fertility of the tributary area, by an earlier start, or by being made a railway centre. In the competition between centres, one, as a result of advantageous position or resources, comes to play a dominant role in the region. Such a centre is larger in population, and has certain types of goods and services which cannot be found in the smaller towns. The region's leading town or city is more urbanized and its styles, its news, and its social activities are imitated by the smaller towns, and with further diminution by their tributary rural dwellers. This larger centre, together with the smaller subsidiary centres, form a single constellation. It is by means of its dominant centre that a region achieves self-consciousness and its interests in relation to other regions become clearly defined. Such marked centralization is one indication that a newly-settled area has reached maturity. Henceforward, it settles down to its appropriate tasks with a minimum of trial and error.

Many factors contribute to the centralized organization of a region. The fertility of the region and the demand for its products, a number of good crops in succession, the building of railway branch lines, electric lines, and hard-surfaced highways which focus upon the region's main centre, and the use of the automobile are a partial list of the forces involved. The smaller towns and open-country hamlets retain their special local functions which no competitor can take away from them. With such divisions of labour as regards centres and occupations, agricultural communities reach their maximum in economic and social efficiency. A stage in organization is reached whereby the region can have expert leadership in reaching its main objectives in the various branches of agriculture, education, religion, and in its more general cultural life.

Meanwhile, a standard distribution of population elements will have taken place. The family unit predominates. The very young as well as the aged make their influence felt in institutional activities. An increasing regional birth rate makes for social and economic stability. Farm operators are land-minded when this stage is reached, because the chronic frontiersman has moved to another fringe and other incongruous elements have found more satisfactory opportunities in the urban occupations of the region. Agriculture reaches a new stability in production, in modes of financing, and in the technique of operation. It is the stage at which capital for farm enterprises as well as for institutional purposes comes from within the area itself.

Social organization, with some lag, tends to keep pace with the basic distribution of population elements and the existing economic exploitation. The new region does not cease abruptly to draw leadership, patterns of social organization, and financial aid from older regions. Nevertheless, it has come to the place where, predominantly, it lives on its own social and economic capital. Under their own leadership, the people of this new region modify inherited social forms and their own indigenous practices to suit these new days of regional autonomy. The dominant centres are the theatres of the greatest activity in this respect, and in such centres the complex integration of their organized life reaches its zenith.

There has been no break with the past in reaching this stage of maturity and stability. In a very vital sense this complex

social and economic organization is related to the memories of the struggles and crises of the early days of settlement. It is in just such fashion that a region develops a somewhat distinctive culture of its own. The entry of particular ethnic groups accentuates this distinctiveness. This is further enhanced by the factors of time-distance and division of labour as between regions.

The foregoing analysis of the main stages in the life cycle of a typical agricultural region of the western plains requires some qualification. The denoted stages are the high points in the evolution of such regions, but they are not sharply distinguishable from each other. Certain phases of one period carry over into the next, even though they are on the wane. The expansion of settlement is a continuous process. Nor does this cycle of development follow an even trend. If an advance is too rapid, it is followed by a recession. This ebb and flow is a perennial phenomenon in new regions. Then, too, the length of each period is determined by a great complexity of forces. The more accessible to world markets a region is, in terms of time-cost, the briefer will be each stage of development. Restrictive control by government, wars, and economic depressions may retard a given phase of settlement. In some regions prolonged periods of drought, drifting sand, or infertile soil may constitute barriers on which the tide of settlement breaks and recedes. Eking out a precarious existence, a few farmers cling to their holdings here and there. Thus the initial pioneering conditions may become chronic. The life cycle in the development of a specific—rather than a typical—pioneer region can now be traced from the point of view developed in this introductory chapter. How far it may conform to type remains to be seen.

CHAPTER II

SUCCESSIONAL STAGES OF THE SETTLEMENT PROCESS

THE Peace River Country lies in northwestern Alberta and northeastern British Columbia. This great belt of potential agricultural land has no fixed boundaries. For the purpose of this study, its extremities may be ignored and attention fixed upon a great compact mid-section belt which extends somewhat

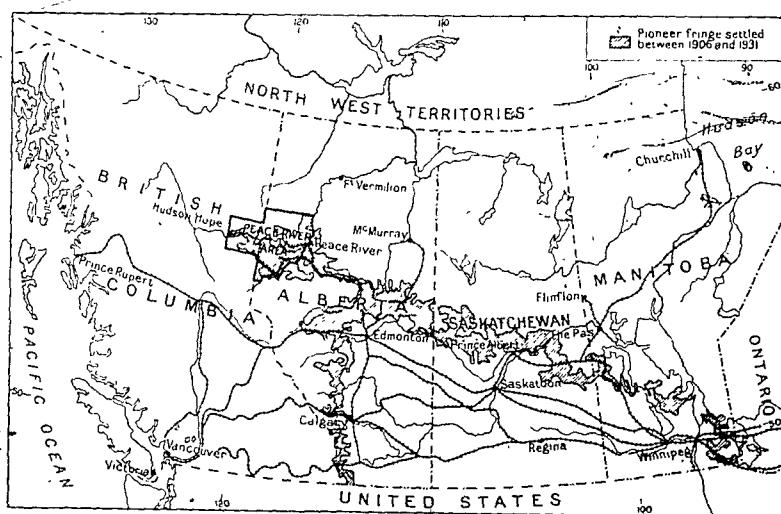


FIG. 2.—The pioneer fringe of the Prairie Provinces of Canada showing the Peace River Area.

beyond the north and south limits of the Peace drainage basin. The part of this region which lies in Alberta extends from longitude 114° W. to 120° W., and from latitude 55° N. to 59° N.; while the British Columbia section extends from longitude 120° W. to longitude 122° W., and from latitude $55^{\circ} 30'$ N. to $56^{\circ} 30'$ N. The tract of land, thus designated, has an area of approximately 73,500 square miles or about 47,000,000 acres.¹ Estimates of the

¹ F. H. Kitto, *The Peace River Country* (Ottawa: Natural Resources Intelligence Service, 1928), pp. 5-6.

potential agricultural acreage vary from 7,000,000 to 18,000,000 acres.²

Precise information is given in this study for a smaller area only, which lies west of the northward flowing sections of the Peace and Smoky rivers and north of the Wapiti. It corresponds to Census Division No. 16 in Alberta and to the Peace River Block in British Columbia. It covers an area extending one hundred miles from north to south and one hundred miles from east to west. This may be visualized as a square with the northwest quarter of it left out. On the west this area is bounded by the wooded rough lands which approach the foothills of the Rocky Mountains; on the north are the unsettled lowlands; and on the south and east there is a wide belt of territory, partly rough and timbered and partly low and swampy. There are a few small settlements between the western end of the Lesser Slave Lake and the Peace River. Thus the area includes most of the settled Peace River Country and is representative of it. Its lines of transportation and communication run southeast to Edmonton—a twenty to twenty-four hour train journey. The belt of rough, swampy country separating the Peace River region from the established settlements of Alberta lying to the north of Edmonton is about two hundred miles wide. As a result of this location, with extensive physiographic settlement barriers on the southeast, the Peace River Country is a "cultural island" in the wilderness. Its settlers, especially in the earlier days, have experienced a marked degree of isolation. It is the most important far-northern agricultural region in Canada, and a romantic interest pervades the history of its settlement.

1. *The Outpost Era*

For more than a hundred years after its discovery the only approach to the Peace River Country was by means of canoe and river boat from Lake Winnipeg via the upper Churchill and Athabasca Rivers. It was an arduous journey requiring several months, and was made only by Indian trappers and white traders who brought the season's fur catch to Grand Portage or later to Hudson Bay. These northern traffic lanes were followed until the end of the nineteenth century, when more direct routes were established by way of the southeast from the "ends of steel" and

² Field notes; this and similar subsequent references are the notes of information gathered locally by the survey parties of the Canadian Pioneer Problems Committee. See Volume I in this series, Chap. VIII.

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improved roads. For a great many years these northerly extensions of modern means of transportation remained from 150 to 200 miles from the banks of the Peace.

The discovery of the Peace River area was incidental to the fur trade of the Canadian West. It resulted from the competition between the two great fur trading companies, the North West Company of Montreal and the Hudson's Bay Company of London, England. Each of these concerns sought to outrival the other by exploring new regions and setting up the first trading posts. These were the motives which led the fur trader, Alexander Mackenzie, to ascend the Peace River in 1792-93 in his search for an overland route to the Pacific Ocean. The immediate result

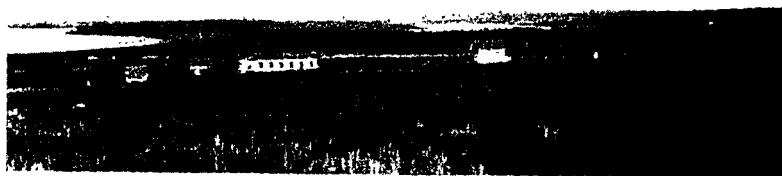


FIG. 3.—The site of the old Hudson's Bay Post at Lake Saskatoon, as it looks today.

of his journey was the establishment by the North West Company of a string of trading posts along the great river. The furs bought from the wandering Indian tribes were shipped by canoe or eight-oared York boat to Montreal by way of Lake Athabasca, Lake Winnipeg and the Great Lakes. Fort Fork, founded in 1792, six miles above the confluence of the Smoky and Peace Rivers near the site of the present town of Peace River, Dunvegan established in 1800, and Fort St. John in 1805, were important posts within the Peace River Country.

This new region soon became a valuable asset to the trading companies. The traders found herds of buffalo, red deer, and moose on the plains, and the hunting of game became an important pursuit. The meat was dried in the Indian fashion, and furnished provisions for the trading posts farther east. Some notion of the importance of this industry may be gathered from the fact that

during the year 1830 a total of 37,286 pounds of fresh meat was shipped at Fort Dunvegan alone.³

The arrival of domestic animals was also incidental to the fur trade. Horses were brought to Dunvegan as early as 1809. They were used to pack meat home from distant hunting grounds. Domestic cattle were plentiful at Dunvegan by 1840, as evidenced by the following entry in the trader's journal: "Shipped to Chipewyan three kegs of butter" (a keg was the common powder keg of 9 gallons). The following year eight kegs were shipped. These are the earliest records of butter making in Alberta.⁴

The need for a more varied food supply led naturally to agricultural experiments, especially since the traders had little to do during the summer months after the season's furs had been shipped east. A Dunvegan trader's diary entry for 1808 states: "Our principal food will be the flesh of the buffalo, red deer, and bear. We have a tolerably good kitchen garden, and we are in no fear that we shall want the means of a comfortable subsistence."⁵ Some years later this trader sowed small plots of grain with good results, although he found the wheat subject to smut.

Agriculture, however, remained a minor industry, as may be seen from the accounts of the small plots and primitive tools in use. Harmon's diary relates: "Extent of ground under cultivation in 1829—about three and one-half acres." A ploughshare and a scythe were brought from England, but the rest of the tools were made at the post. "Carphy employed at making a harrow—Cadrant off for wood for making shovels—Pause gone for birch



FIG. 4.—The Roman Catholic Mission at Dunvegan, built more than a hundred years ago. It is one of the few buildings left at this ancient trading post.

³ E. Jaffray, "Farming on the Peace River a Hundred Years Ago," *Queen's Quarterly*, Vol. 36 (1929), p. 482 (quoting Daniel Harmon's diary).

⁴ *Loc. cit.*

⁵ *Loc. cit.*

to make cart wheels . . . men preparing wood for rakes."⁶ The fertility of the narrow flat lands along the edges of the Peace River was well known in fur trade days, but there was no incentive to develop agriculture beyond local needs. Nor was it to be expected that fur traders would promote this industry, since its expansion would mean the disappearance of the fur business.

During these outpost days a few missionaries penetrated the region and used the forts of the trading companies as their headquarters. The Indians were drawn about these fort settlements. Only a scanty male population was necessary in the pursuit of the fur trade. Family life was absent, except for the alliances between fur company employees and native women. Some of the descendants of these unions are still to be found in the region. Tales of the exploits, the hardships, and the celebrations, associated with the picturesque characters of those early settlements constitute an integral part of the present day folklore of this northland.

2. *Isolated Settlements in the First Years of Agricultural Expansion*

This suitability of the north country for agriculture had been demonstrated in a preliminary way by the fur traders. The frost-free period allowed grains to ripen. Fertility and rainfall assured both yield and quality. At Shaftesbury was the first agricultural settlement of any importance. At the base of the fairly steep banks rising 800 feet above the Peace was a shelf of several hundred acres of flat land just a few feet above the river level.⁷ On this sheltered bench along the northern bank of the Peace were situated the Anglican and Catholic missions, near old Fort Fork and close to the spot where a cairn has been erected in honour of Sir Alexander Mackenzie. These missions were established in the late 1880's. They encouraged farming, and, towards the close of the century, a number of half-breeds and a few white people occupied small farms fronting on the river. Rev. J. Gough Brick, founder of the Anglican mission, was one of the leading spirits in this community. A sample of wheat from his mission farm took first prize at the International Seed Exhibition at Chicago in 1896. His son "Allie" Brick, an interesting and likeable personality, married Miss Nancy Goodfellow, of white and Indian

⁶ *Loc. cit.*

⁷ Taylor's Flats in the Fort St. John section, Dunvegan, already mentioned, and other points along the river contain small areas of low-lying, well-drained river border lands.

STAGES OF SETTLEMENT PROCESS

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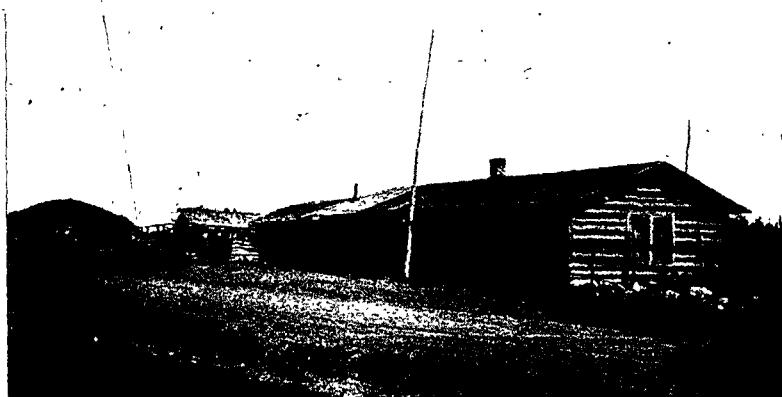


FIG. 5—The old home of the Brick family at Shaftesbury.

FIG. 6—One of St. Augustine Mission buildings at Shaftesbury.

FIG. 7—The Brainard ranch headquarters, now a noted stopping-place on the highway from Hythe to Pouce Coupé.

SETTLEMENT OF PEACE RIVER COUNTRY

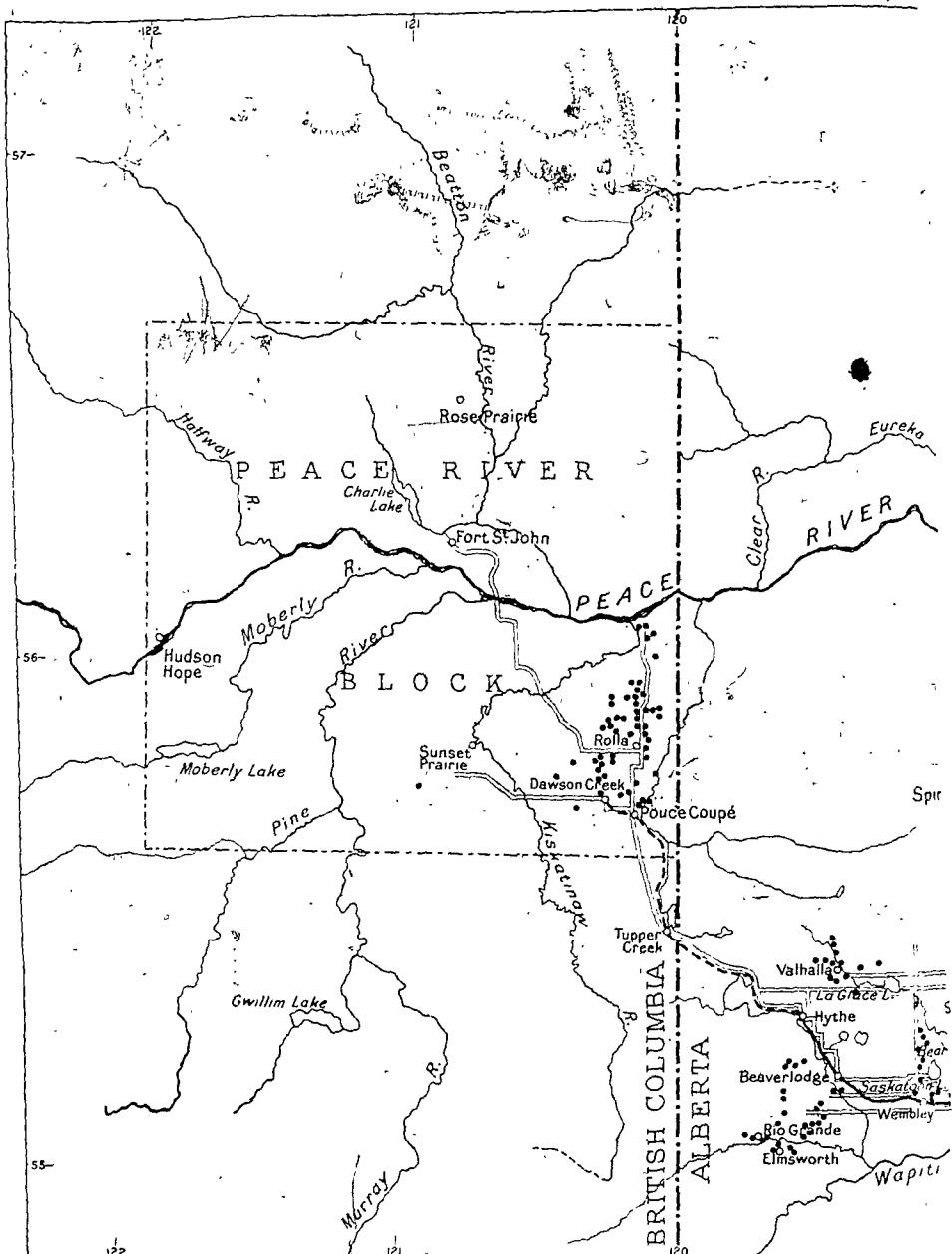
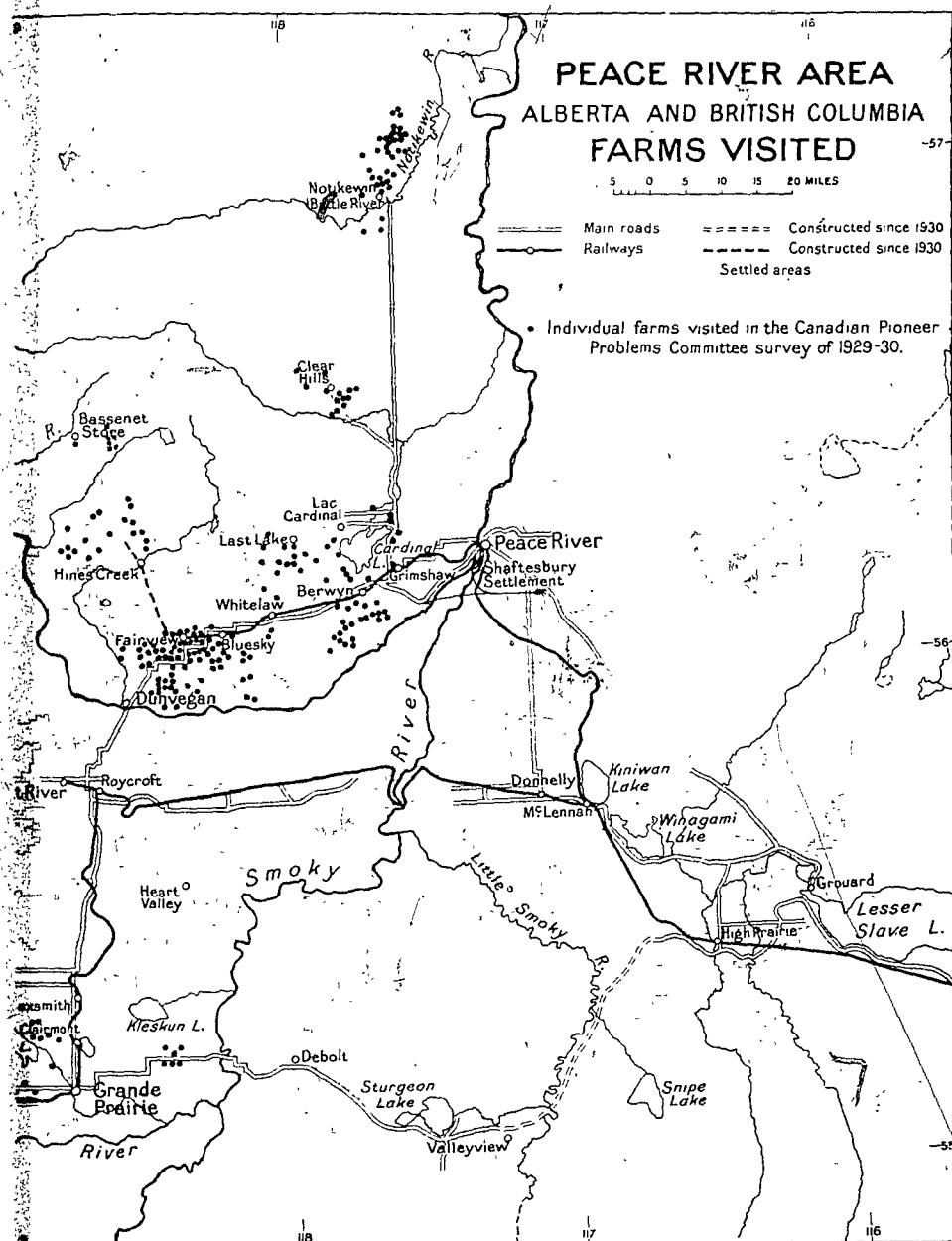


FIG. 8—Map showing the part of the Peace River Country included in this study.

STAGES OF SETTLEMENT PROCESS

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"Farms visited" are those from which information was obtained by field investigators.

descent. He was the first representative of the Peace River Country in the provincial legislature.

The Shaftesbury Settlement, a Hudson's Bay Post until 1896, served as a base for the expansion of agriculture on the higher prairie table-lands back from the river "Breaks". Before the railway entered, Grouard, at the western end of the Lesser Slave Lake, was the land office for this area and there was a sub-land office on the road leading from the Shaftesbury Settlement to the upper level. Many of the Griffin Creek settlers obtained their land through this Shaftesbury office. For some time it remained their commercial, educational, religious, and social centre. The Catholic mission operated a flour mill and a sawing and planing mill which were widely used by the upland settlements. Shaftesbury was also a shipping point by scow and boat. While the Shaftesbury Settlement has lost much of its original significance, the early history of this north country is closely associated with it. When settlement moved far west and north above the Shaftesbury Flats the zealous missionaries made their services available to the fringe of expanding settlement. Old-timers tell how the old priest of St. Augustine Mission at Shaftesbury tucked up his cassock and went far through the winter blizzards to see the sick and shut-in members of his parish.⁸

The Klondike gold rush proved to be another incident in the migration to Peace River settlements. Near the turn of the nineteenth century a number of gold seekers tried to reach the Yukon gold fields by this overland route. They came by trail as far as Shaftesbury Settlement, where they abandoned their pack horses for boats or scows. Their intention was to ascend the Peace and the Halfway Rivers and complete their journey by crossing the mountains northwest of the Peace River. Most of them failed to reach their goal. Some of these disappointed adventurers returned and took up land on the prairies west of the Shaftesbury Settlement.

The stories of traders, gold seekers, missionaries, surveyors, and adventurers reached potential settlers in other regions. The climate and fertility of this new area became widely known in the first decade of the twentieth century. The growth of agricultural

⁸ This mission was founded by the Oblate Fathers in 1888 as a mission to the Indians; sisters of the Providence Order of Montréal came to the mission in 1898. An increasing number of Catholic white children from many sections in the Peace River Country receive at least part of their secular and religious education at this mission. It has rather fine buildings, and its grist mill is operated for its own use (see Fig. 6). Its Anglicanally has gone (see Fig. 5).

settlement was slow in these early years because the distance to market was so great. While cattle and other livestock were raised in this far north country it was not a ranching area. The limited natural pasture, the problem of winter feeding, marketing over long difficult trails, all conspired to keep out the cattlemen, except for a few near the British Columbia border at a later date. Cattle-raising in this country had to be carried on in conjunction with the growth of cereals and domestic grasses. There was no extensive use of the land for agricultural purposes until homesteaders settled on their quarter sections (160 acres). Many of them acquired additional quarters in due course.

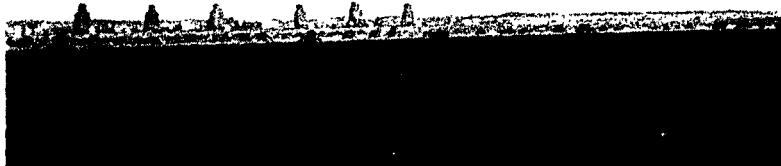


FIG. 9—The level land south of Fairview.

The area with which this study deals falls naturally into two large and several smaller subdivisions, whose natural boundaries are marked off by the Peace River and its tributaries, by broken ranges of wooded hills, and by swampy wastelands (see Fig. 8). First, the Fairview and Berwyn Prairies, partly separated from each other by a belt of rougher, poorer land, taken together form an area of open plain or parkland 10 to 20 miles wide and 40 miles long, stretching from a point 20 miles west of the town of Peace River, to a point a few miles east of Dunvegan. North of the Berwyn prairie is a belt of wooded land covering a poorer soil, with, here and there, muskegs and gravel ridges. Beyond it, several miles to the west of the Battle River highway, is the small Clear Hills prairie. The Battle River prairie lies northwest of Clear Hills, and its southern edge is 50 miles from the Berwyn Settlement. Another large, fertile, agricultural section begins at Hines Creek, 14 miles northwest of Fairview, and extends to the vicinity of the British Columbia boundary. Except for the Fort St.

John district, which is approached more readily from Pouce-Coupé-Rolla prairies, the sections already indicated are the chief districts of settlement north and west of the Peace River.

The Peace cuts a deep gash between northern and southern sections. The width of this river varies from one-quarter of a mile at Hudson Hope to one mile at Vermilion Chutes. Throughout the area of this study its sloping banks, broken by coulées, rise from 700 to 800 feet above its waters. In its 230-mile course from Hudson Hope to Peace River town, the Peace is crossed by ferry



FIG. 10.—The Peace River cannot be crossed readily at many points. Note the wooded cover of the south bank as compared with the bare, coulée-broken north bank.

or bridge only at three points, Taylor's Flats, Dunvegan, and at the town of Peace River. The "breaks", a belt of rough land, often several miles wide, broken by coulées, extend along both banks of the river, and accentuate the barrier between its northern and southern areas of settlement.

Second, to the south of the Peace are the districts of Spirit River, Grande Prairie, Pouce-Coupé-Rolla, and other smaller districts. Spirit River is a small prairie wedged in between the hilly wooded belt along the Peace and a broken range of low wooded hills to the south. Farther south and west of these hills lie the Grande Prairie and allied districts—at the present time the largest settled section of the Peace River region. The Grande Prairie section is bounded on the east by the Smoky River, on the

south by the Wapiti, and on the west by a 50-mile belt of rough land, wooded for the most part and interspersed with muskegs. This latter belt of territory which separates Grande Prairie from the Pouce Coupé prairie in the British Columbia Block is gradually being settled.

The Peace River Country contains no true prairies. It is a parkland region; the lower levels are lightly wooded; the higher ridges are covered with merchantable timber. Each of the so-called prairies is subdivided by creeks, coulées, small lakes, and rough waste land. The good agricultural land is level or rolling.

The prevailing soil types are dark brown or black clay loams,



FIG. 11.—The Peace in flood near Dunvegan.

but there are many patches of light sandy or leached timber soils. The agricultural districts indicated in the preceding paragraphs have on their borders less fertile wooded areas, which are more difficult to clear and harder to maintain in a high state of productivity. Even in the heart of the best districts sub-marginal lands are found. Such lands are characterized by an extremely high mobility of settlers. Those who remain are forced to live under chronic pioneer conditions. There is much good land in the Peace River Country, but in the region as a whole the land is very uneven in fertility and in the ease with which it can be brought under cultivation.

The broken topography and the great variety of soil types make for widely separated settlements, with far from uniform rates of progress. Farmsteads are scattered within a given locality. This arrangement is due to government land policy, topography and climatic features, and the inclinations of individual settlers. Under Dominion land policy, patterned after that of the United

States, agricultural land has been parcelled out in square lots (quarter sections) of 160 acres each. Even if all the contiguous quarter sections were occupied, as very often they are not, settlers would be placed at least one-half mile apart, unless they discovered suitable sites on adjacent corners of their holdings. When additional quarters are acquired, distances between neighbours increase. This individual mode of settlement has continued to prevail throughout the Peace River region. While here and there neighbouring homes lie close together, distances are, in general, noticeably great.



FIG. 12—A growth of timber on high land.

Climatic conditions, also, have their effect in distributing farmsteads. With limited rainfall a very large farm is necessary for the maintenance of a satisfactory standard of living. The Peace River area has a moderate rainfall. Like most other sections of the Canadian prairie region its moisture is somewhat limited, and the problem of drought has to be faced frequently. Precipitation varies from section to section within the region, and from year to year. The meteorological records kept at Beaverlodge may be used as a general index for the Peace River Country. These records show that total precipitation varies from 9.76 to 22.12 inches per year. The general average for a period of 13 years was 16.4 inches. What is more important, one-third to one-half of the rain fell in the growing season, that is, during May,

June and July.⁹ The months of December, January and February are cold, with a moderate snow-fall. Spring comes suddenly, usually during the latter half of April: June, July, and August are the summer months, with extremely long days. The temperature for July, the warmest month, averages around 60° F.¹⁰ September and October are very pleasant months. Except for the cold of the three months of winter which is frequently reduced through the chinook influence, the Peace River Country possesses a delightful climate.

There are patches of land with higher altitudes where wheat growing is hazardous, but most of the region can count upon 80 frost-free days.¹¹ Yet the danger of injurious frost during the growing season must not be forgotten.¹² Some of the early ripening strains of wheat will mature in the upper Peace River area in 110 to 115 days and at Fort Vermilion in less than 100 days. The lower altitude and the longer hours of sunshine give an advantage to those areas farther north which offset their shorter growing season.¹³ The climate of the Peace River is quite suitable for the growth of cereals and vegetables. Frost hazards in certain sections are reduced as the surrounding land is brought under cultivation, but with the passing of the frost problem the drought problem emerges.

The movement of agricultural settlers into this northern region was dependent upon the increasing density and expansion of settlement in the southern areas of the three Prairie Provinces. Rapid settlement of the western prairies during the latter part of the nineteenth century brought the Peace River area closer to world markets. By 1890 the railway reached Edmonton, and kept moving westward. The westward thrust of population veered away from the rough lands west of Edmonton and turned northward, to the edge of the agricultural section which lies well beyond Edmonton. The day had come for the agricultural penetration of the land of the Peace which lay across a two-hundred-mile barrier of forests, rough lands, and low wet lands. It was a trek for the more venturesome and foot-loose. Two routes were followed, one by way of the Athabasca, Lesser Slave Lake and Peace River

⁹ Records kept by W. D. Albright, Superintendent of the Dominion Experimental Sub-Station at Beaverlodge.

¹⁰ F. H. Kitto, *The Peace River Country* (Ottawa: Natural Resources Intelligence Service, 1928), p. 15.

¹¹ *Statistics of Progress* (Edmonton: Department of Agriculture, 1929), p. 171.

¹² See Table I, Appendix. Note the years when crops were poor because of frost or drought.

¹³ Kitto, *op. cit.*

trail; the other, the Edson route, from a point on the transcontinental railway 150 miles west of Edmonton, through the wilderness by way of Sturgeon Lake and the Grande Prairie trail. A period of three weeks or more was required by either route, and heavy loads could be hauled only when winter frosts gave firm footing on the trails. Some used pack-horses or oxen, others made use of canoes and boats for part of the journey, and still others walked in with packs on their backs. While many years elapsed before these trails were improved, some advance was made in means of conveyance as the records of three later settlers show.

I left Edmonton the sixteenth of May, 1910, and went by stage to Athabasca Landing. From there I proceeded along the Lesser Slave Lake by boat to Grouard, and there hired a team to take me into the district west and north of the Peace. Teams were scarce and only a few could afford to use them. Having located my homestead I returned by team, boat and stage to Edmonton. This round trip took me just a month. I went east to the lumber woods and returned in the spring of 1911 with my wife and children, two teams, one year's supplies, mower, rake, plough, wagon, sleighs, clothing for three years, and a little additional capital.

I came from England to Canada, worked around Edmonton for a few years in the lumber business. Another settler and I with teams of oxen drove into the Peace River Country in 1910. We brought in one year's supplies, a mower, rake, plough, doors, and windows, and squatted prior to the survey of our land. In October we left everything behind except our bedding and the oxen, and by riding and walking we reached Edmonton in 18 days. We returned early in the New Year with sleighs, tools, other equipment and additional supplies.

It was in Edmonton that I got in touch with men from the Peace River Country, as at this time we were keeping a small grocery store and used to supply a great many of the settlers with provisions, amongst them Fletcher Bredin of High Prairie. As we three brothers were entitled to homesteads we determined to try farming. I stayed with Mr. Bredin all that summer, and in the fall bought an outfit of pack ponies and rode to Grande Prairie by way of Peace River Crossing and Spirit River. I was so impressed by the country that I wired my mother in Edmonton and asked her to pick up some South African script [titles to land granted to veterans of the South African War]. She bought three of these at \$525 each. The following winter I returned to Edmonton, vacated the store and outfitted to come to Grande Prairie and take up homesteads and script. We left Edmonton on February 6th, 1910, and after a very hard and trying trip we arrived in Grande Prairie on March 12th after 5 weeks on the trail. Just before leaving Edmonton we built a caboose with 12 ounce duck and put in it a small camp stove. In the bottom of this caboose we packed thirty hundred pounds of flour. Mother's bedding and clothes were placed on top, and she made a fairly comfortable trip excepting once or twice when we nearly upset the caboose.¹⁴

¹⁴ Field notes.

Another settler started from Strathcona with two teams, one for a caboose laden with supplies and another carrying personal effects.

We went 100 miles north to Athabaska Landing. From there we went by ice on the Lesser Slave Lake, thence overland to Peace River Crossing (100 miles), then on to Dunvegan (60 miles by river) and from there by trail to Grande Prairie. The trail over the Saddle Mountains was so narrow that we had great difficulty in getting through with the caboose. We were 31 days on the trail.¹⁵

In somewhat similar fashion many others, well- or ill-equipped, found their way to this agricultural frontier. They "filed" or



FIG. 13—Settlers' effects on the way to the Peace River Country via the Athabaska Trail.

"squatted" on the more fertile open land which was ready for the plough. Over this wide expanse of territory were scattered patches of settlement at Waterhole, Spirit River, Grande Prairie, Griffin Creek, Lake Saskatoon, Beaverlodge and Pouce Coupé. These were isolated from one another by broken country and wide stretches of unsettled territory. Roads between them were but rough trails, and each settlement, tucked away in this wilderness, lived very much to itself. Some contacts with the outside world were kept by the straggling in of new settlers, the trips of freighters and mail once a month.

There were women and children in these days before the railway but the population was chiefly male, "shacking" and "flap-jacking"

¹⁵ W. D. Albright, unpublished manuscript.

its way through the years. Every new frontier attracted men of all ages, including a number in their twenties, many more in their thirties, and also a sprinkling of older individuals. The census records for 1911 report only 1,165 white people in Census Division No. 16, and the Indian population probably did not exceed a few hundred people.¹⁶ Miscegenation between whites and Indians continued during the first years of agricultural settlement.

The scattered population did not have the facilities for a high standard of living, but it managed to keep going by producing meat, grains, and vegetables, by freighting, by working for periods



FIG. 14—The first school being built in a "fringe" district.

outside the settlements, and by selling supplies to the small stream of newcomers. Thus some cash was in circulation wherewith to buy groceries and other supplies during the period of waiting for transportation. A settler relates:

We built our log cabin with a sod roof. The floor was 18 by 24 ft. and was made of hewn white poplar. The logs of the walls were hewn inside and planed at a later date. I lost one horse which was in poor shape the first year, for there was little feed. Oats were \$1.50 per bushel and very scarce. I bought one load of hay. A log stable was built that fall, 20 by 40 ft., for the horses and chickens during that first winter. After that I put up wild hay and kept the horses in shape. Some ready money and supplies were obtained by freighting from Athabasca Landing to Peace River. I broke 10 acres the first year and

¹⁶ *Census of Alberta, 1926* (Ottawa: Dominion Bureau of Statistics, 1928), Table 6, p. 547 reports a total of 446 Indians in 1921 on the reserves within Census Division No. 16.

10 acres the second year. We were able to make a living, and though isolated, my wife and children were content. There was difficulty in getting a school as there were few families, and the bachelors fought it at first. There was also factional strife as to the location of the school. Because of this delay our boys missed two years of schooling. Eventually the inspector took the matter in his own hands and located the school. The doctor was a long distance away, and yet there was little suffering. The roads were very poor, but a minister from a distant mission gave us a service once a month during the summer. Social life was very simple, limited to a little visiting, a few dances and parties. But we liked it from the start.¹⁷

The commercial and social organization of this period was exceedingly simple. The old outpost stores extended their services to new elements in their constituency, and new centres emerged to give the agricultural settlers postal and trading facilities. Griffin Creek, Vanrena, and Waterhole, north of the Peace, and Beaverlodge, south of the Peace, were among the new centres established. The Grande Prairie section was also served by the older trading posts, at Flying Shot and Lake Saskatoon. These were small centres which drew their supplies from Edmonton. The records of Bredin and Cornwall's trading centre at Lake Saskatoon cover the period of transition from fur trading to agriculture during the early years of the twentieth century.

Among the leading articles of trade were ammunition, gilling twine, files, cough medicine, castor oil, yellow oil, pills, pain killer, vaseline, porous plaster, a bottle of "scotch" emulsion and an entry or two of celery compound. Citric acid seemed to have a vogue one season, and somebody bought a bottle of "Dunvegan ginger" for five dollars. Tobacco for chewing and smoking was in much demand. Candy, flour, baking powder, raisins, apples, apricots, butter, cheese, condensed milk, and even milk powder were purveyed. Herring, sardines, oatmeal, bacon, beans, soap, and moose-skins were familiar articles of trade. The clothing trade showed a wide range from boots to braid, blankets to beads, cashmere to corsets, gingham to gloves, hats to handkerchiefs. Diamond dyes were available to alter the colour when desired. German socks appealed to those who faced the winter snows. Other articles in this miscellany were bluestone, bridles, brooms, candles, canvas, dress goods, dried meat, flannel, grease, halters, hairpins, matches, mouth organs, pepper, pails, earrings, rugs, saucers, starch, scissors, sinew, sleighbells, violin strings, saddles, tartan, towels, washboards, and underwear.

Considering the long freighting distance from outside, the prices were not so steep: pants—\$5., boy's suit—\$5., muffler—75 cts., broom—\$1.50, women's shoes—\$3.50 to \$4.25, mouth organ—50 cts., dress plaid—50 cts. a yard, cheese—36 cts. a pound, jack knife—70 cts., boots—\$2.50, rubbers—50 cts., boy's

¹⁷ Field notes.

boots—\$1.50, saddle—\$15., halter—\$2.50, ring—50 cts., tartan—50 cts. a yard, and a pane of glass—50 cts.¹⁸

With few children and scattered settlers, schools came tardily. The Beaverlodge district illustrates the difficulties in this respect, although this district had certain specific advantages. The nucleus of settlement was composed of four families from different American and Canadian communities. They were soon reinforced by others, among them sixteen Ontario families, most of whom were members of the Christian Association, which had dissented from the Methodist Church in Canada. This group, with a similar perspective, entered the area in 1909¹⁹, and a few others followed the next year. Already having a religious organization, they helped their neighbours organize the first school in the Beaverlodge district.

Among the settlers of 1909 were quite a few children of school age, and something had to be done about their education. The difficulty in starting a school arose from the fact that there were no school districts, no inspector, and only a monthly mail. Any correspondence would take a month to reach Edmonton and another month for the reply. Before going out for supplies in 1910 the settlers held a meeting in the home of R. C. Lossing to discuss how they might obtain a school. All favoured the project and appointed a committee to wait upon the Department of Education. Eventually the school district was laid out, and by means of voluntary labour, except a foreman paid for part time, they put up their own log school-house. The windows were brought in from Edmonton, and the rest of the material came from the woods in the district. Everyone coöperated ungrudgingly, including the bachelors. While the school was being built Mrs. Drake was hired as teacher, and for a short time schooling was carried on in a settler's vacated shack.²⁰

The outpost missionaries made brave efforts to meet the needs of the people, but services were infrequent because the workers were few, settlements scattered, and the means of transportation very rudimentary. Medical services were even more meagre. Children were born with the services of a midwife, or, more rarely, with the help of a nurse. Despite this fact there was little sickness. A few cases of maternal mortality in the vicinity of Griffin Creek caused the Alberta Government to station nurses in that district. Two of these nurses, Mrs. O'Brien and Mrs. Heffernan, are now the wives of business men at Berwyn and have continued their interest in the development of adequate health services in the

¹⁸ W. D. Albright, unpublished manuscript.

¹⁹ These "old-timers" in the region were known as the "bull-outfit" because the original party left Edmonton with eighteen teams of oxen.

²⁰ *Ibid.*

region. A long distance from the doctor and the hospital was the cause of very real anxiety, for these were settlers in the twentieth century. The experience of one of the first white women in the region is a case in point.

My nearest neighbour was 60 miles away. The Bensons of Kleskun Lake had come in in 1906, but they remained only a few months. Our oldest daughter was born in December, 1907. The nearest doctor was 250 miles distant at Lesser Slave Lake, and the only person one could dignify by the name of nurse was at Spirit River. This woman was married to a half-breed minister (Anglican) and she agreed to care for me. However, she arrived when the baby was a day old and did the best she could.²¹

The organization of local government and the administration of the area awaited the decisions of Ottawa and Edmonton. Land settlement, as far as homesteading was concerned, was under the control of the Dominion Government until 1930. The organization of municipalities, the incorporation of towns, and the organization of school districts awaited a greater density of settlement, local initiative, and the seal of provincial authority. The chief protective and regulative representatives of government in the first experimental period of settlement were the Royal North West Mounted Police who were stationed at Peace River, Dunvegan, and later at Flying Shot. When turbulent elements ran riot Mounted Police were on the spot. Their evacuation of the area in the early years of the succeeding period of settlement was an indication that an effective local government had come into existence. They left Dunvegan in 1915 and moved out of the town of Peace River in 1929. Their duties were taken over by the provincial police, until the latter were merged into the Royal Canadian Mounted Police in 1932.

The less formal and more intimate social life of the settlers had both its bright and dull days. There was no lack of friendliness and hospitality when neighbours were in contact with each other, but distances and lack of roads and means of conveyance contributed to isolation and loneliness. The social meeting-places at stores, schools, churches, and homes were spasmodic and infrequent. Yet there were colourful events which broke up the monotony of an isolated existence. In such matters the few women of the area were a God-send. One of these pioneer women writes:

In 1907 I gave a Christmas dinner to all the white residents of Grande Prairie. I had only eleven guests and I was the only woman present. I made it a Grande

²¹ *Ibid.*

Prairie dinners that is, everything we ate was home-grown as far as possible. The menu was as follows: vegetable soup, roast beef, goose, mashed potatoes, parsnips, pickled beets and cucumbers, cabbage salad, bread from Peace River flour, fresh butter and cream, and last but not least saskatoon wine.²²

On special days such as Dominion Day (July 1) there were sports and picnics. In such affairs the Indians and half-breeds, including their women, mingled freely with the whites and took a very active part in the festivities. These were gala occasions which often lasted several days. Settlers, washed and unwashed, came from distant settlements in heavy wagons, buckboards, on horseback and afoot. Literally they pitched their tents and remained till the hilarious days were over. The few white families, men, women, and little children, came to make merry. In some instances the cows were trailed behind the wagons and, thus, milking duties were performed regularly without shortening the period of festivity. During the day there were races, games, feats of strength, stunts on horseback, quoits, and other forms of sport. Platforms were set up and during the night they were crowded with dancers, young and old. They danced the old-fashioned dances including Red River reels and jigs. Indian maidens made up for the shortage of white women, and, for the time at least, social excitement inspired a semblance of racial equality. "Dunvegan ginger" and other social equalizers were imbibed somewhat freely by the merrymakers. Shacks, bannocks, and introspective brooding were forgotten for the time. These good old days are remembered with lively interest by the old-timers who play the role of raconteurs to the recent settlers. Some of the more celebrated of these old-time sports days took place at Lac Cardinal, Dawson Creek and, still later, at Battle River.

There were other quieter affairs at the homes of the settlers, when the log houses were large enough. Homesteaders met for informal parties, dances, and card games. When distances made it possible there was neighbourly visiting, especially on Sundays. Of course the winter months afforded the greatest amount of leisure time, but during those months the difficulties of travel were multiplied.

There were those on the Peace River frontier whose feats of strength and courage are still remembered. Significant among these are the accounts of the work of Dr. (Mrs.) Higby, who was the frontier doctor, south of the Peace, during the closing years

²² *Ibid.*

of this particular period. With oxen or with horses, in winter and in summer she pursued her medical duties over a wide area. Her high courage and sense of duty took her everywhere. The stories of her achievements are almost unbelievable. Many others there were, who in a less public way worked not less courageously. But this frontier has had, also, its unlovely characters. There were the misfits, the weaklings, and the parasites. There were those who abused frontier hospitality, and were guilty of acts



FIG. 15—An Indian encampment at Sturgeon Lake.

which no decent community would countenance. Of them ugly and sinister tales are still told, and their narration prevents an indiscriminating idealization of the frontier.

3. The Era of Expansion and Integration of Settlements

No single factor ushered in the next period in the Peace River Country. During the early days of experimental settlement few products reached the world market; the settler's security of tenure was slight except in the most fertile and readily tillable patches; on their fringes settlers came and went like the seasons. Yet the nuclear patches of permanent settlers prepared the way for a more productive era. They afforded a settlement base, and were ready to act vigorously when means of transportation became available. The most important single event in the development of this region was the entry of the railway.

The Edmonton, Dunvegan and British Columbia Railway, built

by private capital, reached Peace River town in 1916. An extension from McLennan to Spirit River and Grande Prairie was completed in the same year. The road bed was then laid from Spirit River to Pouce Coupé but no rails were placed thereon. The Alberta Government took over the Edmonton, Dunvegan and British Columbia system, and leased it to the Canadian Pacific Railway in 1920. Subsequently the system was leased to the Canadian Pacific and Canadian National Railways jointly. Since then, extensions north of the Peace have been made to Berwyn in 1922, Whitelaw in 1924, Fairview in 1928, and Hines Creek in 1930. South of the Peace the line was completed to Wembley in 1924, Hythe in 1929, and Dawson Creek at the end of 1930.²³ From 1912 the building of the railway was anticipated, a rosy future for the region was painted, the rush of settlement began, and wheat growing became a considerable enterprise. Telegraphic and telephonic communication penetrated the heart of the region. The whole frontier was astir. Speculative fever pulsed in the veins of those near and far away. Peace River town was boomed as the coming city of the northland. On the western bank of the Peace, from the water's edge back several miles, quarter sections were subdivided into city lots and sold to the highest bidder. Needless to say, the money of these speculators was "grounded" in the rough "breaks" beyond the Peace. The big bridge across the Peace was built, the steel rails moved west, and the town of Peace River was deflated to its natural size. Building lots still hang to the edge of the assessment rolls of Peace River and adjoining municipalities. They yield neither taxes to these municipalities nor returns to the disillusioned investors.

The real Eldorado of the investors in city lots was Dunvegan, one of the oldest fur trading posts in the region. Many thought that Dunvegan, at the river crossing of an ancient trail, would be a natural railroad centre for the lines north and south of the Peace. At least the promoters made this a vivid possibility to their customers in many parts of the world. The prospectus left nothing to the imagination. There were business streets, long avenues of prosperous homes, crowded street cars, bustling hotels, and golf courses for the relaxation of the tired business men in the thriving north. Men bought eagerly; they were allowed to get in on the ground floor. Lots on streets neither paved

²³ The Hines Creek and Dawson Creek extensions were being built during the summer in which the field work of this study was being carried on. See Fig. 8.

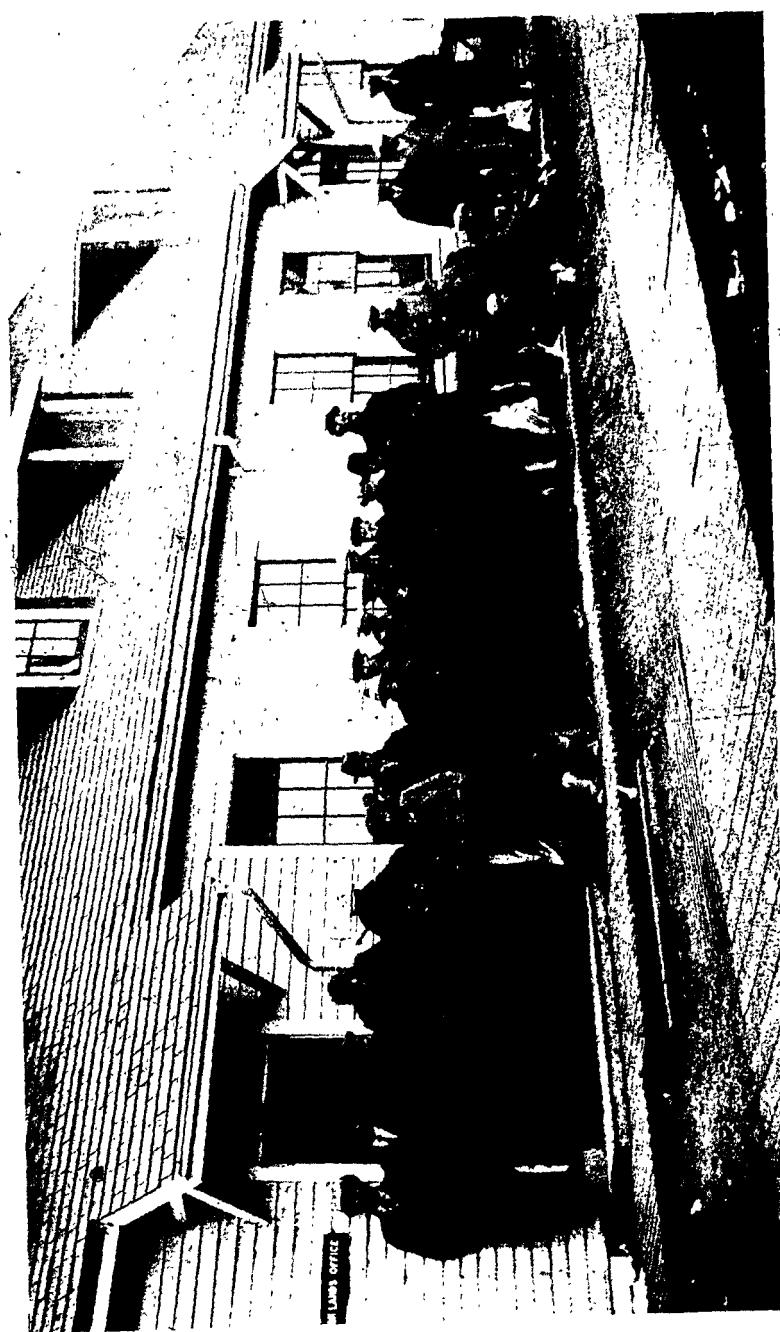


FIG. 16—The rush to file on homesteads.

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FIG. 17.—The old Dunvegan trading post as it appears today.

nor even laid out, were bought and sold. In distant Edmonton and other cities this thriving metropolis in the land of the midnight sun looked like a new Eldorado. Some years later the more curious among these investors came to see the city of which they were part owners. They saw the few buildings of a century-old trading post, saw the current-propelled cable ferry instead of a bridge, and with astonishment asked, "Is this Dunvegan?" Many of the towns at the end of actual steel had their brief boom days until the railway moved on and with it the boom. The railway lines of the great prairie region, south and north, are strewn with the inflated ambitions of "big city" hamlets.

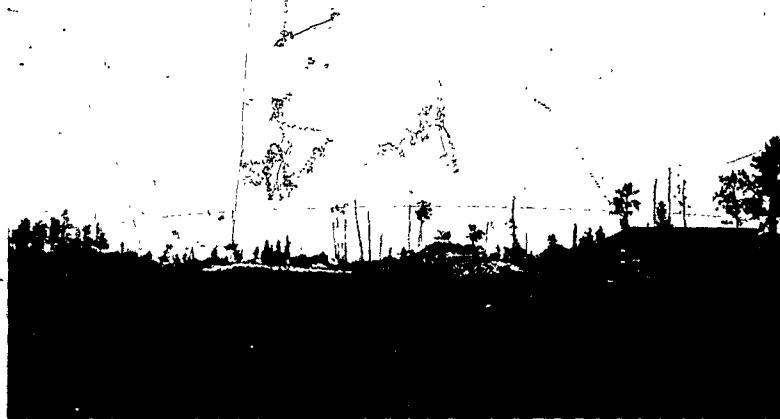


FIG. 18—The first years of the homesteader in the Peace River Country.

Town building, after all, was only incidental to the wave of land settlement. Homesteaders appeared on the scene from a great many different regions and occupations. Among them were ministers, teachers, engineers, sea captains, and farmers, good, bad, and indifferent. The heterogeneous elements included hundreds who never would become permanent settlers. For them homesteads were to be sold, eventually, at a profit. They were there to make money, and were not over-scrupulous about the methods used to attain this aim. These unassimilable elements swarmed into the area when the land fever was at its high point. Two factors combined to hasten the process. The railway had tapped the region, and war prices were being paid for wheat in the world market. Wheat, momentarily, could be grown with some little profit by settlers sixty miles from their shipping point:

The first carload of wheat to be shipped out of the Peace River Country was grown at Vanrena and hauled 100 miles over the old trail to Reno in 1914.

Another settler rapidly broke his land and sowed an increasing acreage from year to year. Wheat was more than \$2 per bushel:

I hauled two loads to Peace River, more than fifty miles, and made something on it. The trip took two days and one-half. A little later I hauled wheat to Spirit River, a somewhat shorter distance but across the Peace, on sleighs during the winter months. Where it used to take the two days and a half to ship a load of 100 bushels, I can get the same wagon load to the railroad now in four hours. In the days of long, hard trips, horse-shoeing, breakages, and other expenses ate up most of the profits.



FIG. 19—The cattle-trader on the way to a shipping point.

A resident of the Rolla district hauled his wheat or hogs 60 miles over the trackless railroad bed to Spirit River year after year:

²³ I did breaking in a small way before the war was over, but I did not get really started until after 1919. Then I bought a tractor and threshing outfit and had 500 acres broken in 1923.²⁴

Hundreds of other settlers were hauling wheat and livestock—in time more wheat and less livestock—to shipping stations, near or far away. They were clearing, breaking, and cultivating during the summer months. The winter was a time for hauling products to market and putting things in readiness for the sowing season in early spring.

The seasonal work cycle ran as follows:

Break-up during the last two weeks of March to the tenth of April. It is a wet, sloppy time; moving about is difficult. It is the time for thoroughly overhauling harness, machinery, and other equipment. During this time seed grain is carefully cleaned in the granary, treating material made ready, seed bins moved and general preparations made. The seeding period takes place

²⁴ Field notes.

between the twentieth of April and the end of May. These dates are only approximate, as seasonal variations are characteristic of this region.

From the middle of May to the middle of July successive tasks confront the farmer. After barley is sown, there is spring ploughing for green feed (oats); somewhat later there is surface cultivation of summer fallow to cause germination of weed seeds. These reach the blossom stage about the third week in June and are ploughed under. Breaking goes on from the first of June to the end of July.

The haying period extends from the middle of July to August the first for tame hay, and for a still longer period on the wild meadows. The wild hay crop is light.

The harvest period begins the middle of August and lasts well on through September.

Threshing goes on from the middle of September to the middle of October. This is the time, too, for taking up the garden products and "mudding" log buildings against the winter's cold.

This is followed by wood chopping, slashing brush for tractor breaking. It is cut 8 inches from the ground that the tractor may pass over it. By the middle of November snow is expected.

Then comes the winter period, when a large percentage of wheat and other grains are hauled to the shipping points by sleighs, wagons, or trucks, depending upon road conditions. There is also the feeding of the stock, cutting wood, drawing lumber and coal, and putting up ice.

The summer daily routine followed this general pattern:

Farmer rises at 5 a.m., starts the fire and brings in the horses for feeding and the cows for milking. The wife rises at 5.30 and attends to her duties.

Breakfast at 7 a.m.

On the way to the field at 7.30.

Stop at 12.

In the field again at 1.30.

Leaves the field at 6.30.

Supper at 7.

Chores till 8 p.m.

Incidentals later.²⁵

Not all farmers followed to the letter the seasonal and diurnal cycles just outlined. There were those misfits from the earlier period of settlement, and those recruits from occupations far removed who found it hard to stick to the ceaseless round of farming operations. There were those who thought the agricultural battle could be fought with a tractor and truck in three months. With few exceptions, those who have succeeded in the busy days of grain growing, with perhaps some livestock as a side-line, have had to work hard and long, whether with or without the most up-to-date farm machinery. They used this machinery to get along with less help, cultivate a larger acreage and make possible

²⁵ Field notes.

a higher standard of living than the subsistence level enjoyed in the isolated communities of the previous period. Now, in a more specialized grain-growing area, they exchanged their products for an increasing variety of goods and services from the more distant urban centres. The community was finding itself in the world's regional division of labour.

This process of expansion was by no means even, for there were counter-forces which at one moment retarded settlement and at another set it more violently in motion. Overseas immigration to Canada practically ceased during the World War, and there was a decline in the migration from other regions on this continent.



FIG. 20—A vacated homestead.

Moreover, there was an exodus from the Peace River for war service. Its per capita enlistment was unusually large. But when the war was ended, the covered wagons moved toward the northland again. Demobilization, assisted settlement from the old land, soldier settlement schemes, continued high wheat prices, publicity—all these forces united to swell the tide of migration to the Peace River Country until the depression came in the early 1920's.

After the great post-war expansion there came a period of recession from 1921 to 1925. The number of migrants northward was exceeded by the outward march of dissatisfied settlers. This set-back was caused by falling wheat prices and high freight-rates,²⁶ by a drop in cattle prices which came after farmers had been

²⁶ See Table II, re shipments of grain from Peace River area in 1916-31.

STAGES OF SETTLEMENT PROCESS

encouraged, by the banks and by government bonuses (the Cow Bills)²⁷, to multiply their herds and after the dry year of 1924.²⁸ This latter experience cured for a time the "cattle fever" which had made many farmers so ill financially. The transportation outlook also discouraged many people. Extensions to existing railways were always promised or hoped for "next year", but "next year" was like the receding horizon, and hope deferred made many a heart sick. This check in expansion resulted in certain permanent gains for the region; it taught farmers that hasty or ill-timed diversification may bring about agricultural failure; it drove out the "suit-case homesteaders", "agricultural prospectors",

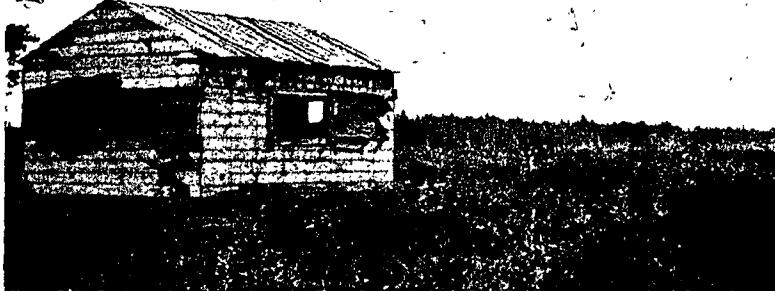


FIG. 21—Trial and failure in land settlement.

and foot-loose adventurers; it encouraged a freight-rate adjustment in 1925 which enabled the region to compete on the same basis as the older settlements close to Edmonton.²⁹ Nor did this contraction of population mean a corresponding contraction in agricultural production. In many instances it meant that homesteads came under the operation—by rental or purchase—of men who had farming knowledge and skill. In short, it meant larger holdings under the direction of more competent farm management (see Table I).

The next period of vigorous expansion began in 1926, gathered force in 1927 and 1928, and finally came to a halt under the full

²⁷ See Tables III and IV re numbers and shipments of horses, livestock, etc., during 1916-31.

²⁸ See Table V re annual yield per acre for period 1916-31; see also Table I Appendix for outline of crop conditions for the same period.

²⁹ In 1924 and 1925 freight rates were reduced by 12 to 13 cents per hundred pounds from points in the area to the head of the Great Lakes at Fort William.

weight of depressed market conditions in 1931. Better crop years, (see Table V), lower freight rates for grains and higher prices for these cereals, together with the unpleasant memories of cattle production swung the pendulum sharply in the direction of grain growing—especially wheat. This was facilitated by the extension of the railway stage by stage to the Pouce Coupé and Hines Creek sections in 1930. *Pari passu* with railway building went the development of the highways after 1922. This road building gave a fine trunk road from the town of Peace River, north of the Peace to Dunvegan, then south to Grande Prairie, and west and north



FIG. 22—Building the highway from Pouce Coupé to Moberly Lake.

through Pouce Coupé to Fort St. John. Toward the end of this period important branch roads were built from Grimshaw to Battle River prairie, from Grande Prairie to Sturgeon Lake, from Valhalla to Sexsmith, and from Pouce Coupé west to Moberly Lake. There was also extensive improvement of secondary roads in Census Division No. 16 and the Peace River Block. The highway from Edmonton to Peace River was greatly improved, and during dry periods automobiles could traverse even the worst section from Smith to the west end of Lesser Slave Lake. Governmental, agricultural, commercial, and railroad interests united to speed up the process of settlement.

In striving toward this objective they set actively in motion the agencies of modern publicity. The task of these agencies was

made easier by certain fortunate circumstances. This new region was, perhaps, the last great area in the northwest suitable for settlement and, in consequence, popular imagination was aroused. At the very moment when settlement recession threatened to become serious, the Peace River Country produced a Wheat King, Herman Trelle. Indeed he was a king of wheat, oats, peas, and other agricultural products. Trelle became interested in pure seed strains particularly suitable to the Peace River region. With a keen mind and by dint of hard work he got to the point where he was ready to exhibit his seed strains in provincial competition. He



FIG. 23—Keeping open a portion of the main highway during the winter months.

began winning prizes back in 1922. Since that time he has received so many major prize awards for his grains and other seed strains in provincial, national, and international competitions that the name of Herman Trelle has become deservedly famous. The stories of his achievements made excellent news copy in Canada and other countries. While he had brought agricultural distinction to Canada in general, it must not be forgotten that his prize grains were grown on his Wembley farm in the Peace River Country. His fame drew further attention to its agricultural possibilities which were described in glowing terms by the daily press:

The Peace River district is a young man's country with unlimited opportunity. Life in the Peace River district is pleasant; it is not beset by the privations commonly attributed to frontier districts.

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Its adaptability for mixed farming excels that of any other section of the Dominion.

Peace River development will double the population of Vancouver.

That the crop of 1927 will be much the largest on record is certain.

The thing that impressed most was that there appeared to be no poor crops.

The Peace River district is capable of producing 500,000,000 bushels of grain annually. It can be made to support a population of 3,000,000 people with ease.

Its climate is excellent, its vegetation luxuriant and its soil is extremely rich.³⁰

It is a young country but it bears the signs of prosperous maturity . . . one outstanding reason for this achievement is the character of the Peace River settlers. They are for the most part drawn from Eastern Canada, the British Isles, the United States, from Scandinavia and other countries in northern Europe. They have faith in the country and pride in it. There are many homesteads



FIG. 24—Peace River at "The Gates", between Fort St. John and Hudson Hope.

to challenge comparison with districts in Ontario that have been settled for 50 years. Others are in process of transformation. But most of them are "on the way", confident of the future of the country. The Secretary of the Board of Trade of Grande Prairie, submitted to the correspondent a signed statement of representative yields of the district:

Ten year average yields of wheat (1915-1924), Huron, 41 bushels 53 pounds per acre; Marquis, 34 bushels 18 lbs. The seven year average (1917-1924) stands: Huron, 41 bushels 44 lbs.; Marquis, 36 bushels 23 lbs.; and Ruby, 27 bushels 45 lbs. Nine year average yields of oats (1916-1924); Victory, 87 bushels 2 lbs.; Ligowo, 83 bushels 18 lbs.; and Danberey, 63 bushels. Nine year average of barley: Early Chevalier, 33 bushels 22 lbs.; O.A.C., 21, 37 bushels 3 lbs. Seven year average of Prenmost flax, 11 bushels 43 lbs. The above years have comprehended two or three of the driest seasons on record, which have pulled down the averages.³¹

³⁰ F. R. Glover, executive of the British Columbia Electric Railway, in his report on the Peace River area, *The Vancouver Sun*, Oct. 20, 1927.

³¹ Special staff correspondent in the *Winnipeg Evening Tribune*, Nov. 20, 1926.

Consider first the river that gives to this great country its restful and alluring name. Rising in the trench of the Rockies close to the centre of northern British Columbia, it pours its turbulent waters for 100 miles through majestic mountain passes and canyons. Emerging from the last of these at Hudson Hope, it winds its way more slowly and peacefully for another 700 miles through a rich agricultural plateau . . .

Federal government statistics put the area of the Peace River's agricultural country at 47,000,000 acres. That is probably too generous. On the other hand, the Federal government's estimate is quite conservative. Taking the term "47,000,000 acres," what does it signify? Ontario, with an annual agricultural production running around \$500,000,000 is using less than 25,000,000 acres for all purposes. In the three prairie provinces combined, over 500,000,000 bushels of wheat were produced from 22,500,000 acres . . .



FIG. 25—The Peace River highway near Brainard.

FIG. 26—The roads are not all as smooth as the Peace River Highway.

Who shall estimate the potentialities of such a country? When its density of farm population has attained even the present low average for Alberta, it will be sustaining well over a million people on its farms alone. This makes no allowance for the concurrent urban or mineral development . . .

Scenes of the great pre-war immigration period are being reproduced in Peace River to-day. Settlers are flocking in as to no other district in Canada since pre-war days. New areas are being opened up and fully homesteaded in a single season. Towns of a hundred buildings exist where native grasses grew a year ago.³²

Thus did countless others write and speak, but often far less moderately than those just quoted. Their enthusiasm was kindled by the fragmentary figures available, the stories they had heard, and the beauty of the Peace River countryside itself. Many of those who wrote about this northern country or who kept alive their enthusiasm through the delivery of public speeches, had travelled on the Peace River-Fort St. John highway. The highway plays a prominent part in advertising the region, because

³² John M. Imrie, first article, in a series of articles on the Peace River Country, *The Edmonton Journal*, Aug. 29, 1929.

only a few travellers see more than the immediate countryside or hear more than the comments in the villages through which they pass. Few regions have a highway through a fertile country where the landscape is more beautiful. From the heights of the Saddle Mountain, from the top of Mount Saskatoon, or from the high banks overlooking Taylor's Flats, the traveller sees before him wide vistas of cultivated land interspersed with wild land, clumps of trees, rivers, and lakes. Naturally, this highway passes through the



FIG. 27.—The density of settlement is increasing along the main highway although, on the available land, clearing and breaking is accomplished with difficulty.

older and better areas where are to be seen the broadest fields and the best homes. Like a great bow it bends from north to south across the Peace, and eventually back north over the Peace again. It is not surprising that those who travel this road during the summer months, and especially when wheat fields show their gold on either hand, should give the Peace River region the benefit of whatever doubt they might have had. The area, receiving more and more attention, became an objective for those who, from many motives, sought to make a fresh agricultural or commercial start. This settlement upon the land increased agricultural production and

made for changes in population elements. These trends are indicated quantitatively over a period of years by the number of farms, occupied acreage, improved acreage, annual yields and shipments of cereals and livestock. Specific changes are also shown in aggregate population, age and sex distribution, ethnic, occupational and regional backgrounds for the period of expansion and integration. (See Chapter III for the quantitative measurements.)

Closely related to the trends in productivity and in the composition of population was the building-up of life on a regional basis. This integration of isolated districts of settlement was



FIG. 28—Settlers moving on from Hythe, the "end of steel" in 1930.

achieved through the occupation of intervening farmlands, the extension of the means of transportation and communication, and through the development of social organizations centering in the railway towns and villages.

The railway's entry to the Peace River Country, while the chief force in the integration of scattered districts, was a disruptive invasion at the outset. Its coming, as elsewhere in the prairie region, was the signal for "boom towns", land speculation, and an increase in the number of shysters, especially in the "end of steel" towns. The uncertainty and drift in railway building policy gave rise to the "wild-cat" guesses and speculative interest in the next move of the construction gangs. The disturbance of the railway's entry was increased further by its avoidance of the towns and hamlets already in existence, although it passed within a few



Fig. 29.—The arrival of the first train at Fairview.

miles of them. This meant that at Berwyn, Bluesky, Fairview, Wembley, and Beaverlodge, towns and hamlets were lifted bodily from their old locations and placed on sites from two to five miles distant. These sites were chosen by the railway officials. One hundred buildings were moved from old Beaverlodge to its new site in 1928. School boundaries were dislocated at various points in the region, and established institutional services were disorganized. Gradually adjustments were made to this new situation and the railway assumed its role as an integrating factor.

There was a parallel development in telegraphic and telephonic facilities. Towns became the centres of the organized commercial and social life of their constituent territories, and hence became involved in commercial and social rivalries. With adequate means of transportation farmers used more than one centre and were, in consequence, the active agents of regional integration. Furthermore, these towns were the local headquarters of units of commercial, agricultural

and social organizations whose programmes and functionaries were weaving a web of common life about the region.

4. *The Period of Regional Centralization*

In the Peace River area the period of regional centralization is just commencing. As yet the region does not focus in one dominant centre. In a sense Grande Prairie is the "capital" of the Peace River Country but its organizing influence is most apparent south of the Peace. North of the Peace, the town of Peace River is the main centre to which the towns and villages along the line are



FIG. 30—Circus day in Grande Prairie, the Peace River "capital".

somewhat subsidiary. Nevertheless, Grande Prairie's commercial and social institutions have penetrated northward much more extensively than those of Peace River town have penetrated southward.

Grande Prairie had a population of 1,464 in 1931, and a retail business turnover in 1929-1930 of more than \$2,000,000. Peace River town had in the same years 864 inhabitants and a turnover of a little more than half of that for Grande Prairie. Grande Prairie is at a more strategic point, having a wide expanse of fertile agricultural land north, east, and west. Grande Prairie performs some wholesale functions for the area, is the headquarters of regional supervision for banks and insurance companies, of provincial agricultural representatives, and it has the largest and finest equipped hospital and high school in the north country.

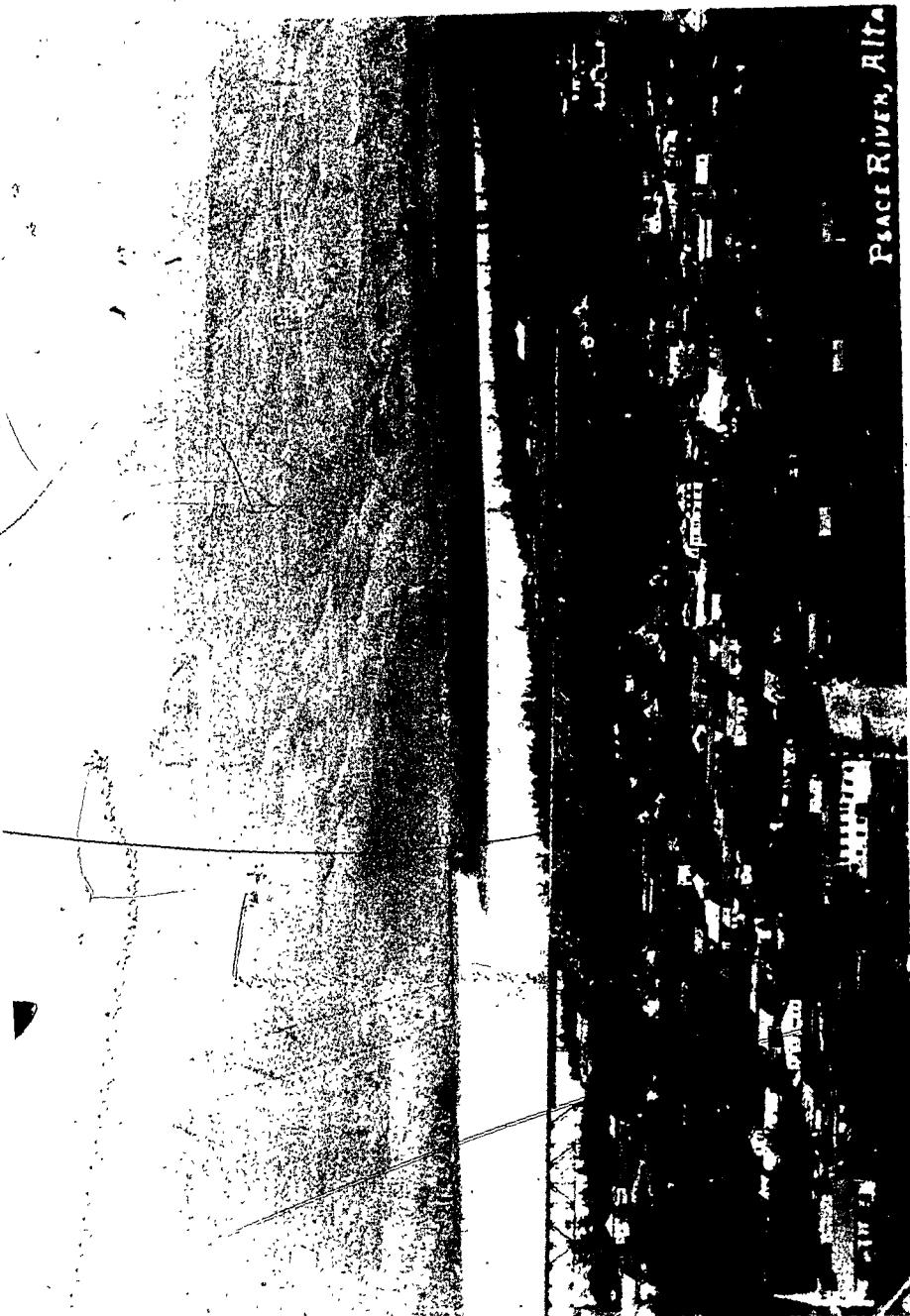


FIG. 31.—The town of Peace River in 1910.

Peace River, Alta.



FIG. 32—The modern district school building, which is typical of districts long settled.

FIG. 33—An improved farm-home.

FIG. 34—A home in one of the older districts.

Grande Prairie has a fine theatre building with the only "talkie" equipment in the region. This theatre draws attendance from the north of the Peace quite frequently. On the other hand, the town of Peace River is still the centre of the fur trade for the northern region, is the headquarters of the Anglican bishop, has a fine municipal hospital, is the headquarters of the school inspectorate and provincial police north of the Peace, and is the land settlement headquarters of the region. It is beautifully located on the Peace at the break of rail and water transportation and serves as the leading centre of the expanding agricultural districts west and north. Fur trade traditions and memories cling to it and are kept alive by the role that it still plays as a supply centre and shipping point for the northern posts.

More Indians and half-breeds live and visit there than in any other town in the region. It is the centre of the less conventional type of social life in the region. It stands midway between the old and the new. Only imperfectly as yet have subsidiary towns and villages defined their functions in relation to these larger centres. In time and as a result of a more complete network of transportation, one of these centres—or perhaps still another—will be the dominant centre in and through which the life of the region will come sharply to focus.

The development of the Peace River Country has been presented in terms of the main stages of its life cycle to date. Its commercial and agricultural activities, its population elements, its means of transportation and communication, its social institutions, and every other phase of its life exhibit successive modifications which bear a close relationship to the various stages in the natural history of the region as a whole.

Up to this point changes have been presented in more or less descriptive forms. It now remains to give them quantitative expression.

CHAPTER III

STATISTICAL INDICES OF THE SETTLEMENT PROCESS

THE stages of development described in the preceding chapter are partially correlated with measured changes in the size of farms, improved acreage in relation to occupied acreage, and in the nature of agricultural production. The tendency toward the consolidation of quarter-section holdings into larger farm units is quite clear. Equally evident is the experimentation in the field of production, so typical of new regions. During the first period of marked agricultural expansion cattle-raising rose irregularly and then waned. Wheat eventually came into its own as the major cash crop.

The region's cycle of growth and change is also accompanied by successive measurable differences in age and sex distribution; the population of the region is approaching more closely in its sex- and age-grouping that of agricultural regions long settled.

The cyclical changes which this region as a whole exhibits are not accompanied by a redistribution of ethnic elements, except for some increase in the Central and Southeastern Europeans in the newer districts and some scattering of a few individuals from the groups. Once settlement has taken place in a region which remains almost exclusively agricultural, its ethnic composition changes so slowly that data taken from this field do not supply indices to the stages in its maturation. Such stages belong to a much shorter time series.¹ These data are retained in this chapter because they round out the population data and because diversity of ethnic origin, together with diversity of birthplace and of occupational experience, make pioneer regions such as the Peace River Country amazingly heterogeneous in population. This heterogeneity, too, is related rather directly to the development of the social and economic organization of the region.² Indices of the cyclical development of the region might be obtained from occupational and birthplace material if our data were complete for

¹ Industrial invasion, should it take place, would initiate a new series of changes which would mean the selection of new occupational and ethnic elements.

² See Chaps. VIII, IX, and X.

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the different periods. The quantitative occupational data, in particular, are limited to the time when the survey was made. However, the available data indicate how new the region is in terms of the native and regional birthplaces and of the agricultural background of the operators.

The first tables deal with changes in agricultural production.

TABLE I—AGRICULTURAL STATISTICS, PEACE RIVER, CENSUS DIVISION No. 16

CENSUS YEAR	NO. OF FARMS	OCCUPIED ACREAGE (acres)	MEAN SIZE OF FARM (acres)	IMPROVED ACREAGE		
				Total (acres)	FIELD CROPS	
					Wheat (acres)	Oats (acres)
1916*....	1,307	330,543	253	69,363	19,777	24,042
1921†....	3,578	879,945	246	243,570	58,548	84,690
1926**....	2,796	857,154	307	308,232	128,735	73,001
1931††....	6,974	1,804,418	259	.....	.....	.....

AREAS OF EARLIEST SETTLEMENT†††

1916*....	1,017	263,594	259	58,330	17,838	19,896
1921†....	1,905	506,655	266	178,140	50,946	54,420
1926**....	1,594	501,966	315	214,960	100,741	43,023

* Census of Manitoba, Saskatchewan and Alberta, 1916 (Ottawa: Dominion Bureau of Statistics, 1918), Table 25.

† Census of Canada, 1921, Vol. 5 (Ottawa: 1925), Tables 81 and 82.

** Census of Alberta, 1926 (Ottawa: 1928), Tables 97 and 98.

†† "Preliminary Report," Census of Canada, 1931 (Ottawa: 1932).

*** *Op. cit.* Final Bulletin No. 19, p. 34.

††† Rural Municipalities—739 Grande Prairie
—740 Bear Lake } South of the river.
—857 Peace }
—858 Fairview } North of the river.

At the time of the penetration of the railway in 1916 the number of farmers was only 1,307 (see Table I) in the area which is defined as Census Division No. 16 of the Peace River district. The expansion in the next five years increased the number of farmers almost threefold and the occupied acreage in approximately the same proportion. However, in the succeeding five years, from 1921 to 1926, in which there was a slight recession in the numbers of population in the area and a considerable reduction in the

number of farmers (782), there occurred only a slight falling off in the total amount of occupied land. In other words, those settlers who remained during this period of recession must have taken over the land belonging to the migrants and have added it to their own holdings. This is indicated by the fact that the size of the farms increased from an average of 246 acres in 1921 to 307 acres in 1926.

TABLE II—SHIPMENTS OF WHEAT AND OATS ON RAILWAYS SERVING GREATER PEACE RIVER AREA, 1919-1931*

YEAR	WHEAT (tons)	OATS (tons)	YEAR	WHEAT (tons)	OATS (tons)
1919.....	41,541†	33,227	1926.....	105,744	14,829
1920.....	14,342	18,850	1927.....	177,625	33,098
1921.....	23,472	21,599	1928.....	213,344	42,387
1922.....	43,734	7,689	1929.....	211,773	42,382
1923.....	50,618	29,645	1930.....	273,213	50,302
1924.....	60,229	18,362	1931.....	334,659	70,451
1925.....	72,769				

* Steam Railways of Canada, Annual Reports (Ottawa: Dominion Bureau of Statistics).

† Includes all grains, chiefly oats.

While the number of farmers was increasing threefold in the first period from 1916 to 1921, the improved acreage increased almost four times, and, in the succeeding period of recession in population there was at the same time an increase of about 60,000 acres in the amount of improved land. In 1916 there was an average improved acreage per farm of 53. In 1926 this had changed to 110 acres; it had doubled in 10 years. Even with this recession then, the production of the area increased, wheat acreage increased threefold in the first period and more than doubled in the succeeding period in spite of the smaller population. Oats acreage was slightly larger than that of wheat in each of the years from 1916 to 1921 but the increasing popularity of wheat was shown in the much larger acreage which was sown to it in 1926 after the more favourable freight rates had given encouragement to its production and export.

Annual shipments of wheat and oats for the years 1919 to 1931 (see Table II) indicate in a more detailed fashion the great expansion in the production and export of wheat in the area, especially in that expansion period which occurred between 1926 and 1931.

Wheat shipments rose during this last period from 105,744 tons to 334,659 tons. The shipments of oats were considerably higher than those of wheat until the year 1921, but subsequent years show declining tonnage of shipments of oats until 1927 when they began to increase slightly.

In the areas of earliest settlement (see Table I) the changes in the number of farms, the occupied acreage, the improved acreage,

TABLE III—NUMBERS OF LIVESTOCK ON FARMS IN THE PEACE RIVER AREA,
CENSUS DIVISION No. 16

YEAR	NO. OF HORSES	CATTLE	HOGS
1916*	5,590	6,350	11,374
1921†	18,461	39,675	14,457
1926**	20,280	22,372	16,911
1931††	30,243	28,760	37,799

* *Census of Manitoba, Saskatchewan and Alberta, 1916*, Table 25.

† *Sixth Census of Canada, 1921*, Vol. V, Table 89.

** *Census of Alberta, 1926*, Table 103.

†† "Preliminary Report," *Census of Canada, 1931*.

and the production of field crops during the periods of expansion, 1916 to 1921, and of recession from 1921 to 1926 are much the same for the whole area of Census Division No. 16. The changes in the number of farms were not so great, but the size of farms increased more than in the area as a whole over the whole period 1916 to 1926. The displacement of oat acreage by wheat in the period of recession after the failure of livestock production and the introduction of more favourable freight rates (1924-1925) is especially noticeable in these areas of earliest settlement.

The table on livestock in Census Division No. 16 (Table III) indicates the periodical changes in the livestock industry in the census years. The number of horses increased in almost the same proportion as did the rural population and the occupied acreage in the first period of expansion after the penetration of the railroad. Their numbers increased only slightly, however, in the period of recession from 1921 to 1926. Numbers of cattle on the farms increased almost six times between 1916 and 1921 owing to the effects of the Cow Bill and the great movement for diversified farming which followed the War. However, their numbers declined very sharply in the succeeding period with the low prices, the

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TABLE IV—SHIPMENTS OF LIVESTOCK ON RAILWAYS SERVING GREATER PEACE RIVER AREA, 1919-1931*

YEAR	TONS OF FREIGHT HAULED			YEAR	TONS OF FREIGHT HAULED		
	Horses	Cattle	Hogs		Horses	Cattle	Hogs
1919....	13,493†	....	....	1926....	541	5,092	2,375
1920....	1,299	5,074	1,629	1927....	980	4,755	2,544
1921....	767	2,786	1,077	1928....	1,713	5,135	2,596
1922....	415	7,572	2,783	1929....	1,644	3,668	2,509
1923....	207	7,935	2,291	1930....	1,504	2,987	2,160
1924....	316	8,772	2,889	1931....	765	3,485	2,575
1925....	474	9,223	3,454				

* Data provided by Canadian National Railways.

† Livestock of all kinds.

decrease in the rural population, and the increased acreage which was given over to wheat.

Annual shipments of livestock from that part of the north country which might be called the greater Peace River district are indicative of the changes which were shown in the census figures for five-year periods. The figures, which are the tonnages carried by the railroads (see Table IV), are given for the years 1919 to 1931. Both ingoing and outgoing freight are included. The

TABLE V—AVERAGE YIELD PER ACRE OF WHEAT AND OATS IN PEACE RIVER AREA, 1916-1931, CENSUS DIVISION No. 16

YEAR	YIELD PER ACRE		YEAR	YIELD PER ACRE	
	Wheat (bushels)	Oats (bushels)		Wheat (bushels)	Oats (bushels)
1916*	16	36	1924....	14	26
1917....	19	34	1925....	16	24
1918....	13	37	1926....	20	40
1919....	31	42	1927....	33	59
1920**....	17	30	1928....	20	35
1921†....	11	23	1929*....	20	40
1922....	11	18	1930....	28	44
1923....	26	60	1931....	...	...

* Years 1916-1919 and 1929-1931, Annual Reports of the Alberta Department of Agriculture.

** Sixth Census, Dominion of Canada, 1921, Vol. 5, Table 85.

† Years 1921-1928, *Statistics of Progress* (Edmonton: Department of Agriculture, 1928), pp. 66-76.

shipments of horses follow much the same trends as do the population figures, since it was chiefly the importation of horses by the settlers that accounts for the shipments. The tonnages increase in the expansion periods and decrease in the period of recession. The case is different with the shipments of cattle, however. The figures indicate that large numbers of cattle were imported into the territory in the years 1919 and 1920 when the tide changed, and cattle began to move out from the area in greatly increasing numbers from that time till 1925. The actual number of cattle in the area was greatly lessened as shown by the census figures in Table III. After 1925 the total shipments of cattle began to fall off very perceptibly. The total shipments of hogs changed but little from 1919 to 1931, averaging between 2,000 and 3,000 tons each year.

The average yields per acre of wheat and oats given in the preceding table (Table V) are indices of the varying crop conditions experienced in this period. The yield of wheat varied from 11 bushels per acre in 1921 to 33 bushels in 1927. The yield of oats varied from 18 bushels in 1922 to 59 in 1927. The yields of particular years had a very direct effect on the migration to and from the Peace River area. The good crop of 1919 was one of the factors contributing to the increased settlement which occurred in 1919 and 1920. The poor years of 1921 and 1922 gave considerable impetus to the movement of settlers out of the area.³ It tended to check the influx of new settlers and to discourage those who had already taken up land. A series of good years with average yields of 20-33 bushels per acre for wheat contributed to the renewed expansion of settlement which occurred after 1926.⁴ (For more detailed data on the crop conditions in the years 1916-1932 for the Peace River district, see Table I, Appendix).

In the period of isolated settlements and in the succeeding period of expansion and integration the growth of population is spasmodic and both advance and recession are experienced. The trends in population expansion, changes in sex ratio, in age and sex distribution, and in ethnic and occupational backgrounds are shown in the following pages.

Rapid growth of population, due mainly to migration, characterizes both the Province of Alberta and its northern frontier, the

³ See Table VI.

⁴ *Ibid.*

Peace River area. The newness of the latter is seen in the fact that its peak increase of 423.8 per cent. came in 1916, while the highest rate of increase, 153.6 per cent. for the whole province occurred ten years earlier. Another frontier characteristic may be recognized in the fact that percentage increases for successive census periods fluctuate much more widely for the Peace River area than for the province. The absolute figures must, of course,

TABLE VI—THE GROWTH OF POPULATION OF THE PEACE RIVER AREA COMPARED WITH THAT OF THE PROVINCE OF ALBERTA, 1901-1931

YEAR	PROVINCE OF ALBERTA		PEACE RIVER AREA			
	Population	Percentage Increase over preceding date	Population	Percentage Increase over preceding date	Population	Percentage Increase
1901....	73,022	....	....	....	....	....
1906....	185,195	153.6	743†††	....	....	....
1911....	374,295	102.1	1,165	56.8	....	....
1916....	496,442	32.6	6,102	423.8	....	....
1921....	588,454	18.5	12,131	98.8	1,694	....
1926....	607,599	3.3	11,352	-6.4	....	....
1931....	731,605	20.4	29,278**	157.9	6,685††	294.6***

* Census Div. No. 16 comprises the Alberta section of the area studied.

† Peace River Block refers to that part which lies in British Columbia. See Fig. 2, Map of Peace River area.

** This total includes 1,333 people in Battle River settlement, which extends north of Census Division No. 16.

†† Population data for the Peace River Block are available only for the Dominion Census years 1921 and 1931. No census was taken in British Columbia in 1916 and 1926, as was the case for the three Prairie Provinces.

*** Increase is based on the 10-year period, 1921-1931.

††† *Census of Alberta, 1906.* The above total includes population for Dunvegan, Grande Prairie, Peace River Crossing, and Spirit River settlements.

be kept in mind. Thus an increase of roughly five thousand people in 1911-1916 for Peace River area corresponds to 423.8 per cent. of the 1911 total while an increase of about six thousand in the next five-year period corresponds to only 98.8 per cent. of the 1916 figure. The depression period of the early 1920's is reflected in the relatively low figure of 3.3 per cent. increase for Alberta in 1921-1926. Its influence is even more marked on the northern

frontier where the net decrease of 6.4 per cent. indicated that the exodus from the area exceeded the influx. The rapid growth of population during the 1926-1931 period (20.4 per cent. increase for the province and 157.9 per cent. for the Peace River area) reflects the improved economic conditions throughout the west. It is worth noting that the renewed momentum of northward migration was not spent until late in 1930, a year after the depression was general in older areas.

The sex distribution of population changed during this period of settlement, as may be seen in the following table:

TABLE VII—SEX RATIOS FOR THE PEACE RIVER AREA AND FOR THE PROVINCE OF ALBERTA, 1901-1931* (Number of Males per 100 Females)

YEAR	PROVINCE OF ALBERTA	PEACE RIVER AREA	
		Census Div. No. 16	Peace River Block
1901.....	128	...	...
1906.....	140	...	...
1911.....	149	194†	...
1916.....	126	202	...
1921.....	123	160	...
1926.....	120	136	...
1931**.....	121	142	185

* *Census of Alberta, 1926*, Table 10, p. 60.

† *Census of Alberta, 1911*, Vol. 1, Table 2. Based on data from seven Peace River settlements, which were unorganized territory in Edmonton Electoral District in 1911.

** "Preliminary Report", *Census of Canada, 1931*.

The difference in the sex ratio between the two regions is one of degree, and the ratios of 194 and 202 males per 100 females in the Peace River area in 1911 and 1916 respectively, are explained by the fact that relatively few women migrated northward before the railway reached Peace River. There is a definite trend towards a balance in the sex ratio as the age of settlement increases, but the stage reached by the province in 1906, as reflected by a ratio of 140 males per 100 females was not approximated by Peace River area until twenty years later. Retardation of settlement in the Peace River Block as compared to the rest of the northern region is indicated by the unbalanced ratio of 185 males per 100 females as late as 1931. This condition is related to lack of transportation facilities until recent years. It is worthy of note that periods

of very rapid migration are those marked by a great influx of males, and the trend toward a balance between the two sexes is thus temporarily disturbed. This is exemplified in the case of Alberta in 1906 and 1911 when the proportion of males was greater than in 1901. A similar fluctuation is seen for Census Division No. 16, in 1916, when the sex ratio was 202 males per 100 females as compared to 194 in 1911.

The next table records the changing sex ratio for the northern settlements in the most advanced stage of development at the present time.

TABLE VIII—TRENDS IN THE SEX RATIO FOR THE AREAS OF FIRST AGRICULTURAL SETTLEMENT IN THE PEACE RIVER AREA*

YEAR	TOTAL POPULATION	NUMBER OF MALES PER 100 FEMALES
1911.....	980	213
1916.....	3,554	208
1921.....	5,632	158
1926.....	5,960	137

* Above Table includes data from the following municipalities: Peace No. 857, Grande Prairie No. 739, Bear Lake No. 740, Fairview No. 858. *Census of Alberta 1916 and 1926, Census of Canada, 1911 and 1921.*

The sex ratio for the areas of first agricultural settlement follows a trend similar to that for the whole Peace River area, as shown in the preceding table. The male population outnumbers the female population by more than two to one until 1916, when the railway reached Grande Prairie and Peace River town. From this time on an increasing proportion of female migrants is evidenced by the marked trend towards a balanced sex ratio in 1921 and 1926 census years. It may be stated, by way of comparison, that in 1926 the ratio for the total rural population of Alberta was 132.

Table VII shows a sex ratio of 194 males per hundred females in 1911 for the whole Census Division, while that for the first agricultural settlements is 213 in 1911. This difference in the proportion of males is due partly to the influx of single male homesteaders to the Fairview-Berwyn and Grande prairies. Another reason is that the population for the whole Census Division includes not only the above-mentioned prairies but also the older settlements at Peace River, Shafesbury, and Spirit River where the two sexes were represented by almost equal numbers.

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The tables just presented must be placed over against the stages of development outlined in the preceding pages of this chapter.⁵ The trend away from an excessive male distribution may be noted for the region as a whole, but it is somewhat offset by the continued opening up of new districts on the fringes of the older settlements. In Table VIII the territorial units are constant and the trend toward a more balanced sex ratio becomes more apparent.

The shape of the population pyramid of the Peace River sample in comparison with those of older regions is an indication of

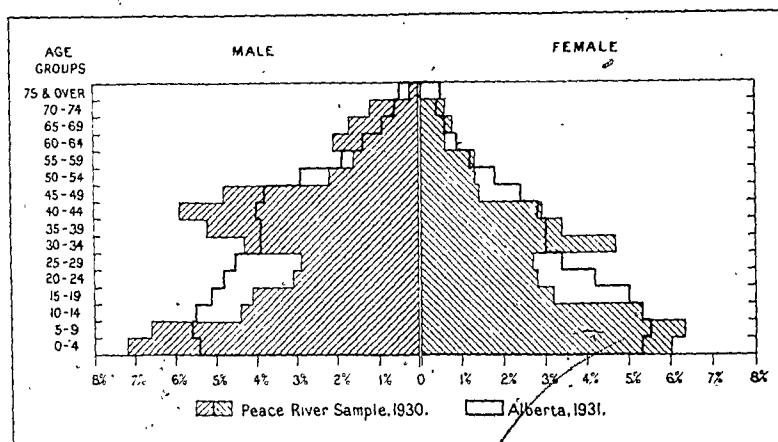


FIG. 35—Population Pyramids (age and sex distribution of the population) for the Peace River area and for Alberta.

its youth (see Fig. 35). The extreme irregularity and the unbalanced sex ratio are the most noticeable features of this diagram. The excess of males is especially marked in the age-groups above 30-34 years and the largest proportion of males is between 30 and 50 years of age. There is a tendency toward symmetry in the three lowest age-groups, which include children born within the area. This tendency will appear also in the adult groups within the next two decades as natural increase takes the place of immigration. At the present moment it is a population at the age of high productive efficiency.

The ethnic character of the region has remained relatively constant.

⁵ See Tables I and II.

The accompanying table presents the number and proportion of principal ethnic groups in Alberta for the last four census years. The British group is the largest throughout the three decades, varying from 47.8 per cent. in 1901 to 59.8 per cent. in 1921. The drop to 53.2 per cent. in 1931 is explained by proportionately greater increase of other ethnic groups rather than decrease in absolute numbers of British. The Scandinavian group while increasing in absolute numbers from about 4,000 to roughly 63,000 in

TABLE IX—PRINCIPAL ETHNIC ORIGINS OF TOTAL POPULATION IN ALBERTA, 1901-1931

ETHNIC ORIGIN	1901		1911		1921		1931	
	POPULATION	PER-CENT-AGE	POPULATION	PER-CENT-AGE	POPULATION	PER-CENT-AGE	POPULATION	PER-CENT-AGE
Total.....	73,022	100.0	374,295	100.0	588,454	100.0	731,605	100.0
British.....	34,903	47.8	192,629	51.5	351,820	59.8	389,238	53.2
Scandinavian*....	3,940	5.4	29,634	7.9	47,471	8.0	62,779	8.6
North and West European†.....	13,002	17.8	62,074	16.6	80,794	13.7	129,218	17.6
Central and Southeast European**.....	7,151	9.8	39,727	10.6	82,750	14.1	124,929	17.1
Various others ††.....	14,026	19.2	50,231	13.4	25,619	4.4	25,441	3.5

Data from Censuses of Canada, 1901, 1911, and 1921, and from "Preliminary Report", *Census of Canada, 1931*.

* Scandinavian includes Danish, Norwegian, Icelandic, Swedish, and Finnish.

† North and West European includes French, German, Dutch, Belgian, and Swiss.

** Central and Southeast European includes Austrian, Hungarian, Czech and Slovak, Polish, and Roumanian, Russian, Ukrainian, Italian, Greek, and other Central and South European groups.

†† "Various Other" includes Indian, Chinese, Japanese, Hebrew, and other non-European groups of little numerical significance here.

thirty years, maintains a relatively stable proportion, varying between 5.4 and 8.6 per cent. The North and West Europeans likewise maintain a fairly stable position of about 17 per cent., except for the post-war census of 1921, when the proportion dropped to 13.7 per cent. The French and German people account for 5 and 10 per cent., respectively, of this North and West European group, while the remaining fraction comprises people of Dutch and Belgian extraction. The greatest proportional gain is seen in the group of Central and South European origin which increases steadily from 9.8 per cent. in 1901 to 17 per cent. in 1931. The corresponding totals are about 7,000 people in 1901 and 125,000

in 1931. The group called "Various Others" includes American Indians, Asiatics, Hebrews, and others whose origin is not specified. The American Indians who form the majority of this group, vary from 13,000 to 15,000, but the corresponding proportion dropped from 18.4 per cent. in 1901 to 2.1 per cent. in 1931.

The distribution of ethnic elements in the Peace River area follows much the same trend as that for the whole province. The earliest data for the north country appear in the Census for 1921, but the ethnic distribution for the Peace River Block is not available until 1931. For this reason, only the last census figures are used in the accompanying table.

TABLE X—PRINCIPAL ETHNIC ORIGINS OF THE POPULATION IN PEACE RIVER AREA IN 1931* (Census Division No. 16 and Peace River Block)

ETHNIC ORIGIN	POPULATION	PERCENTAGE
Total.....	34,630	100.0
British.....	17,384	50.2
Scandinavian.....	4,226	12.2
North and West European.....	5,867	16.9
Central and Southeast European.....	4,815	13.9
Various Others.....	2,338	6.7

* No ethnic data are available for Battle River settlement, since it lies in unorganized territory outside Census Division No. 16. The total population was 1,333 in 1931.

Data from "Preliminary Report", *Census of Canada, 1931*.

The British group comprises one-half of the Peace River population, or a slightly smaller proportion than that for the province. A regional difference is seen for the Scandinavian element which forms 12.2 per cent. of the Peace River population, but only 8.6 per cent. for the province. The North and West European group forms practically the same proportion in both areas, i.e., 16.9 per cent. in the north country and 17.6 per cent. for the province.

The Central and South European group is under-represented on the north frontier in comparison with the province, as indicated by proportions of 13.9 and 17.1 per cent., for the respective areas. The native Indians account for the bulk of the group called "Various Others". They comprise 4.9 per cent. of the Peace River population, or more than twice as large a proportion as that for the province. It would appear from these figures that the Peace

River area has a population whose ethnic composition reflects, in the main, the heterogeneity that characterizes the population of Alberta as a whole.

If we examine the sub-areas of the Peace River area, which were surveyed for this study, we find certain differences between older and newer settlements in the ethnic composition of their populations.

TABLE XI—PRINCIPAL ETHNIC ORIGINS OF THE TOTAL POPULATION IN FAIRVIEW, GRANDE PRAIRIE, BERWYN, ROLLA, AND FRINGE SETTLEMENTS, IN 1931 (Percentage Distribution)

ETHNIC ORIGIN	FAIRVIEW	GRANDE PRAIRIE	BERWYN	ROLLA*	"FRINGE" SETTLEMENTS†
Total.....	100.0	100.0	100.0	100.0	100.0
British.....	57.4	55.2	56.7	59.3	40.8
Scandinavian.....	8.9	14.1	11.1	13.3	9.5
North and West European.....	24.9	17.8	14.9	13.8	15.5
Central and South-east European	6.3	11.7	13.6	4.9	26.8
Various Others.....	2.5	1.2	3.7	8.7	7.4

* Rolla settlement is here taken to include Sub-divisions C (Beaton River) and D (Kiskatinaw River) in Census Division No. 10 for British Columbia.

† The "Fringe" Settlements include Hines Creek and Clear Hills settlements, i.e., Local Improvement Districts: Nos. 859, 888, 889, 917. Data for Battle River, the third settlement usually included under the term "Fringe" Settlement, were not available. Data from "Preliminary Report", *Census of Canada, 1931*.

While the majority of the settlers are of British extraction, Scandinavians and Northwest Europeans are also relatively important. (In most instances these non-British elements have come either from older Canadian regions or from the United States, and are fairly well adjusted to the life and language of this continent.) The settlement of Valhalla is composed, in the main, of Norwegians from Camrose, Alberta, and from Minnesota. Among the earliest settlers are the Germans from the Rhineland and the German-Russians from the Black Sea region, who form the homogeneous Catholic community of Friedenthal near Fairview. There is a small group of French-Canadians near Bezanson in the southeastern corner of the Grande Prairie district. Polish, and in recent years, Russian and Ukrainian elements, have

been pushing into the fringe districts, east of Spirit River, immediately east of the British Columbia border, northwest of Rolla, along the Battle River highway, and on the outskirts of Clear Hills and Battle River districts. Indian reserves are found at a few points throughout the area, but they are opened to white settlement when the land is needed.

TABLE XII—BIRTHPLACES OF FARM OPERATORS (Comparison of 332 Peace River Farm Operators with the Total Farm Operators in Census Division No. 16, and in the Province of Alberta)*

	TOTAL FARM OPERATORS			PERCENTAGE DISTRIBUTION		
	Peace River Sample	Census Division No. 16	Province of Alberta	Peace River Sample	Census Division No. 16	Province of Alberta
No. of occupied farms	332	2,796	77,130	100	100	100
Operators reporting birthplace.....	329	2,736	75,394	99	98	98
<i>British-born.....</i>	<i>185</i>	<i>1,477</i>	<i>34,713</i>	<i>56</i>	<i>53</i>	<i>45</i>
Canada.....	117	956	20,290	35	34	26
British Isles.....	68	504	14,099	21	18	19
Other British Possessions.....	...	17	324	..	1	..
<i>United States.....</i>	<i>66</i>	<i>649</i>	<i>19,130</i>	<i>20</i>	<i>23</i>	<i>25</i>
<i>Continental Europe.....</i>	<i>78</i>	<i>610</i>	<i>21,389</i>	<i>23</i>	<i>22</i>	<i>28</i>
Scandinavia.....	35	324	6,294	11	12	8
North and West Europe.....	23	63	3,026	7	2	4
Central and South-east Europe.....	20	223	12,069	6	8	16
<i>Asia and other countries.....</i>	...	...	162	..	..	0†
<i>Not reported.....</i>	<i>3</i>	<i>60</i>	<i>1,736</i>	<i>1</i>	<i>2</i>	<i>2</i>

* Census of Alberta, 1920, Table 10, p. 195.

† Less than $\frac{1}{2}$ of 1%.

By way of summary, it may be stated that people of British, Scandinavian, and German descent form the bulk of the population in the older settlements. The British people also form the largest group in the fringe settlements, but their proportion is decreasing rapidly in favour of Central European people.

Even more important than ethnic origins is a consideration of the regional origins of the population. Frontiers exhibit a great

heterogeneity as to birthplace of its inhabitants, but as the region matures the native-born element becomes predominant.

Two circumstances render the comparisons made in Table XII less valid than they otherwise might have been. The latest available statistical data for Census Division No. 16 and for the province are taken from the Census of Alberta, 1926. A great number of people moved into the area during the next four years, however, and 80 of these recent arrivals are included in the sample group. Again, the sample includes 55 farm operators from the Peace River Block, but data as to total farm operators in this sub-area are not available. Yet these discrepancies are not great enough to obscure the essential differences between older and newer regions.

The British-born operators are slightly over-represented in the sample, as compared with the Census Division, and this applies mainly to the group from the British Isles. On the other hand, the United States-born operators are slightly under-represented, i.e., by 20 per cent. as compared with 23 per cent. for the Census Division. For the rest, the sample gives slightly more weight to operators from north and west Europe than is warranted by the corresponding figure for the Census Division. Taken as a whole, the survey sample of 332 farm operators may be taken as fairly representative of the various ethnic elements in the rural population of the Peace River Country.

The present settlers not only have a variety of ethnic backgrounds but they were born in diverse regions. Sometimes they came straight from their birthplace to the Peace River Country; in many more cases they had moved from region to region until they came to a full stop in the valley of the Peace. Figure 36 shows the variety of routes of migration followed by a sample group of 328 Peace River farm operators. The number of men who followed a given route is indicated by a figure, and a stop-over of at least one year is shown by a dot in the region specified. The arrows indicate the general movement westward. The most direct routes, i.e., with none or only one stop-over, were followed by 88 per cent. of the men from Eastern Canada, by 57 per cent. of those from the British Isles, by 68 per cent. of the Continental Europeans, and by 77 per cent. of the United States-born operators. Less than 6 per cent. of the sample group came to Canada by way of the United States.

While many of the people of the non-agricultural occupations had been weeded out by the time of this survey in 1930, the area

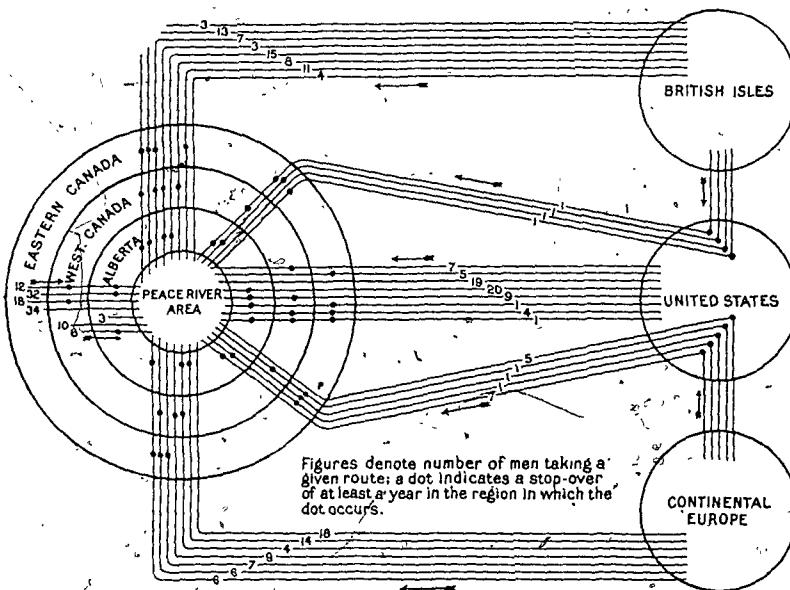


FIG. 36.—Regional derivation of 328 Peace River farm operators.

still included among its settlers many persons with a wide range of occupational experience. As in other newly settled regions such occupational variety is in sharp contrast with an almost exclusively agricultural population in farm areas long settled. There were found those who had been for a time blacksmiths, carpenters, draughtsmen, fishermen, glass-blowers, moulderers, plumbers, sawyers, tailors, bottlers, bricklayers, builders, warehousemen, foundrymen,

TABLE XIII—CLASSIFICATION OF PREVIOUS OCCUPATIONS OF 332 PEACE RIVER FARM OPERATORS

PREVIOUS OCCUPATIONS	No. OF OPERATORS
Semi-agricultural occupations.....	16
Professional.....	21
Business managers.....	29
Unskilled.....	46
Artisans.....	51
Clerks, office workers, personal and civil service.....	115
Semi-skilled artisans.....	118
TOTAL.....	396*

* The 332 operators visited were represented in various occupations 396 times. This means then that many of them had been engaged for some time in more than one occupation. (See Table III, Appendix, for details of occupations).

lumbermen, miners, jockeys, mill-workers, sailors, policemen, surveyors, fruit-packers, smelter-men, trappers, ministers, dentists, lawyers, doctors, soldiers, mechanics, storekeepers, engineers, railwaymen, office workers, teachers, hotelkeepers, and jacks-of-all-trades.

Further evidence of the occupational mobility, i.e., the changes in occupation, of the 332 farm operators in the Peace River sample is given in the following table:

TABLE XIV—DISTRIBUTION OF FARM OPERATORS BY PREVIOUS OCCUPATIONS OTHER THAN FARMING

NO. OF OPERATORS	PREVIOUS OCCUPATIONS OTHER THAN FARMING	PERCENTAGE	
		1	2
94	None Other		
127	1 "		
74	2 "		
29	3 "		
7	4 "		
1	5 "		
332			

A total of 94 operators, or 28 per cent. of the sample, had worked only at farming before settling in the Peace River area, while the remaining 72 per cent. had engaged in one or more non-agricultural pursuits. Yet some rural contacts are established for the majority of the sample group from the fact that 271 operators, or 81.6 per cent. of the total, were born on farms, while the remaining 61 operators, or 18.4 per cent. were born in towns or cities. This last group included 24 men from urban areas in the British Isles.

There were 81 men, or 24 per cent. of the sample, who reported no previous agricultural experience. The remaining 251 operators, or about 75 per cent. of the total, had been engaged at least one year in full-time farm work. About 50 per cent. of this latter group had spent 1 to 9 years on farms before entering the Peace River area: 32 per cent. had 10-19 years' previous farm experience; the remaining 18 per cent. had spent 20 years or more at farm work outside the Peace River area.

The main stages of the Peace River development have been described. It is now our task to define the present-day fringe by comparing it with the older districts. In this way the various stages in the life cycle of the region can be exhibited side by side, and their living conditions analysed.

CHAPTER IV

THE PATTERN OF AGRICULTURAL DEVELOPMENT IN THE PEACE RIVER IN COMPARISION WITH OTHER AREAS*

THE description of changes in agriculture in the first part of the preceding chapter has dealt with the cycle of land exploitation in its time-sequence. This analysis, however, does not present a complete historical account of the various phases of that cycle. For that reason, then, it is necessary to make use of information collected by rural surveys in 1930 to present a cross-section of the Peace River settlements in comparison with those of well-settled areas in other parts of the Great Plains regions of Canada and the United States, and also to give a similar analysis of successive districts within the Peace River area itself. By such means a pioneer region is defined through comparison with areas in a more advanced stage of development, and the fringe of this region is defined by comparing districts just settled with those which are approaching maturity.

Successive changes occur in the conditions of farming as an area proceeds through the cycle of exploitation. The number of farmers increases, and at the same time also the size of the farm. The quarter-section homestead becomes successively the half-section owned farm, and later the three-quarter section owned and rented farm. Many become even larger. Correlated with this change is the increase in the amount of improved land. In the early years of settlement a large proportion of the land is made up of new clearing or breaking. Later, with constant cropping, comes the weed problem and the summer fallow. Gradually the popular cash crop, wheat in this instance, displaces the earlier maturing feed crops, such as oats and barley, which are grown chiefly for the needs of livestock. Livestock is of more importance to the settler when he first enters. Transportation is poor and he must raise commodities with small bulk per unit of value. Average capitalization of the farm shows successive changes in other items besides livestock. Land and buildings take a progressively larger part of the total investment in the farm as the

* The material for this Chapter was prepared by Professor R. W. Murchie.

area increases in maturity. The log shack will remain until a series of good crops provides income sufficient for a frame dwelling. Entrance of railway and other facilities automatically increases the value of the land. Machinery appears to take a smaller part of the total capitalization as the area approaches maturity. It would appear that the smaller fringe farms require a certain minimum of machinery which is sufficient to carry a larger holding. Growing maturity brings more capital into the region. Credit ratings of the farmers also improve, and there is a progression toward higher ratios of liabilities to invested capital.



FIG. 37—Wheat in stook near Grande Prairie.

Initial capital is one of the means by which the settlers have established these agricultural conditions. The data indicate that final net worth is directly correlated with the initial capital. Cash receipts are another means by which farming is established. In the early stages of settlement when the farm is not a producing unit, the settler receives a large part of his annual returns from outside the farm, usually by working in the older agricultural sections of the country. Regional maturity brings a relatively high degree of independence of outside sources for provision of the means of living.

In order to appreciate the agricultural development of the Peace River Valley, it is necessary to compare this region with the whole Province of Alberta and with other areas still more suitable for this purpose. To facilitate this comparison, a number of tables

are presented summarizing data published in the *Census of Alberta, 1926*, data from the records obtained in the 1930 survey in the Peace River Valley, and also from other similar studies.

1. Number and Size of Farm Holdings

The development in the number of farms in Alberta from 1901 to 1926 inclusive is indicated by the increase from 9,479 farmers in 1901 to 77,130 in 1926¹. The highest number reached was in 1921 when 82,954 were reported, and the exodus of some 5,000 is explainable in terms of the rapid decline in farm prices following the War.

The average acreage held has increased from 288 acres per farm in 1901, to 370 acres per farm in 1926². This increase in the size of farms, however, does not tell the whole story. The rapidity with which the farm industry has advanced in Alberta can probably best be measured by the increase in the amount of improved land.³ In 1901 only 474,694 acres, or an average of approximately 50 acres per farm, were reported as improved while in 1926 the total improved acreage was 13,204,114, or an average of more than 171 acres per farm.⁴

The trend toward larger holdings can be seen from the fact that only 27 per cent. of the farms in 1901 were larger than a quarter section, while in 1926 the proportion had increased to 57 per cent. Census District No. 16, which includes the Peace River Valley, had a total of 2,796 farms in 1926. The average area occupied per farm was 307 acres or just slightly less than the average for Alberta for 1916. The average amount of improved land in 1926 was approximately 110 acres per farm, which is practically the same as the average for Alberta in 1916. This suggests a lag of about ten years in the development of the Peace River area.

The 332 farms visited during the survey of 1930 are shown in Table XV to have held a total acreage of 145,337, or an average per farm of 438 acres. This would suggest that the farmers visited were not quite representative but operators of a somewhat larger farm unit than the average in the district. Not only is this figure larger than the average in the district, but it is also larger than the average for the whole province in 1926. It must be kept in

¹ *Census of Alberta, 1926* (Ottawa: Dominion Bureau of Statistics, 1928), Table 56.

² *Ibid.*

³ Land which has been broken.

⁴ *Census of Alberta, 1926*, Table 56.

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TABLE XV—AVERAGE OCCUPIED AND IMPROVED ACREAGES

	CENSUS DIV. NO. 8* ALBERTA, 1926	CENSUS DIV. NO. 16* ALBERTA, 1926	PEACE RIVER SAMPLE 1930
Total acreage in area.....	4,166,637	7,104,255	.....
Total occupied acreage.....	3,160,215	857,154	145,337
Percentage of area occupied...	76	12	.....
Average size of farm.....	349	307	438
Total improved acreage.....	1,344,270	308,232	59,752
Percentage improved.....	42	36	41
Average improved acreage per farm.....	148	110	180

* Census of Alberta, 1926, Table 94.

mind, however, that the figure for the province represents a very wide variety of farming areas and is therefore not strictly comparable. Comparing these figures with those of the Melfort district of Saskatchewan⁵ it is worthy of note that the average for the latter is 465 acres per farm, a figure somewhat higher than those for either of the areas mentioned. The Melfort district is considerably older than the Peace River district, although its soil, climate and other physical features are quite similar.

The number of farms of different sizes found among the 332 farms surveyed in the Peace River area is shown in Table XVI.

TABLE XVI—SIZE OF FARM HOLDINGS IN THE PEACE RIVER AREA

TOTAL AREA (acres)	NUMBER OF FARMS	TOTAL AREA (acres)	NUMBER OF FARMS
0 - 160.....	80	961 - 1120.....	9
161 - 320.....	95	1121 - 1280.....	1
321 - 480.....	63	1281 - 1440.....	1
481 - 640.....	50	1441 - 1600.....	..
641 - 800.....	19	Over 1600.....	3
801 - 960.....	11		
		Total.....	332
Total acreage.....			145,337
Average.....			438

⁵ William Allen, *The Farm Business in Saskatchewan* (Saskatoon: College of Agriculture, University of Saskatchewan, 1930). The samples investigated in this study were from a very restricted territory in the immediate vicinity of the town of Melfort, and for that reason are not strictly comparable with the Peace River sample figures, since the latter includes all types of farms from the centre to the constituent fringe. The figures therefore show greater contrast between the Peace River area and the Melfort well-settled area than would be the case if the latter study included a more scattered sample.

It is noteworthy that 175 of the farms comprised half sections or less, and 157 were three-quarters of a section or more, some ranging over two and one-half sections.

The amount of improved land operated by these farmers visited in 1930 was 59,752 acres, and the average per farm was 180 acres (41 per cent.), or 191.8 acres on the average for the 309 farms which had improved land in crop. (See also Table IV, Appendix, for classification of farms according to improved acreage.) This is slightly larger than the provincial figure for the year 1926 (171 acres per farm, or 46 per cent.). In Melfort⁶ the amount of improved land is 69 per cent. of the occupied acreage as compared with the 36 per cent. in the Peace River, Census Division No. 16. In Census Division No. 8 of Alberta, an area much older but comparable physiographically to Census Division No. 16, the proportion of improved land was 43 per cent. in 1926. It is quite typical of the fringe region that a smaller proportion of its occupied acreage is improved. It takes considerable time and capital investment to clear and break land for cultivation and both of these are at a premium in the fringe.

2. *Tenure of Farm Holdings*

The occupants of farms in the fringe areas are chiefly owners, or homesteaders, who will become owners upon the completion of their homestead duties. Table XVII presents the numbers and percentages of owners or homesteaders, managers, tenants, and owner-tenants for the Peace River sample and for Census Division No. 16, as well as for the older area of Census Division No. 8, Alberta. The figures indicate that there are significant differences between the older and the newer areas. Only 66 per cent. of the Census Division No. 8⁷ operators are owners or homesteaders while in the fringe region of Census Division No. 16, 70 per cent. are in this class and, in the sample, 79 per cent. One-third of these latter have not yet "proved up" their homestead rights. If the owners and owner-tenants are combined, the difference becomes more significant. The combined figure for the older area includes only 81 per cent. of the total number of operators while, in the fringe census division, the figure is 91 per cent. This leaves only 9 per cent. tenants in the fringe area and no managers whatsoever, as

⁶ *Ibid.*, p. 54, Table 34.

⁷ This is one of the older areas in the parkland of central Alberta. Its physical features are much like those of the Peace River area. It includes the towns of Red Deer, Wetaskiwin, and Camrose.

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compared with the 18 per cent. tenants in the older area and 1 per cent. managers.

The newer fringe contains few tenants because land is comparatively cheap in the first stages of settlement and it is not necessary for the individual to have any large amount of capital in order to become an owner of property. The \$10 filing fee and the fulfilling of certain homestead duties is the only requirement. However, as the area becomes older and as the value of land increases, the amount of initial capital required for an individual to become an owner necessarily increases also. As a consequence,

TABLE XVII—TENURE OF FARM HOLDINGS

	CENSUS DIV. NO. 8*		CENSUS DIV. NO. 16*		PEACE RIVER SAMPLE 1930	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Total number of farmers....	9,059	100	2,796	100	332	100
Owners or homesteaders....	6,041	67	1,955	70	263	79
Managers.....	57	1	12	..	..	..
Tenants.....	1,602	17	239	9	3	1
Owner-tenants.....	1,359	15	590	21	66	20

*Census of Alberta, 1926, Table 94.

those with small amounts of capital must first become tenants. Tenancy in an extensive form may take place on the fringe only after its cheap agricultural land has been taken up.

Most of the settlers took up homesteads when they first arrived. Only 47 of the sample studied had purchased the first farms on which they settled, while 280 had acquired their first holdings by homesteading or by legacy. This is shown in detail in Table V, Appendix, which also reveals the fact that the two great homestead periods were the years prior to 1914 and the years between 1925 and 1929.

The survey has shown that a settler usually adds one or more additional units to his original homestead or first purchase. The total number of such purchases recorded by the interviewers was 248, and from these records some information can be gleaned regarding land values in the Peace River area within the last 20 years. Table VI, Appendix, sets forth in detail the number of purchases made at different prices in the four five-year periods

between 1910 and 1930. Thirty-three of such purchases were made at prices averaging less than \$5 per acre, while the majority ranged between \$5 and \$20 per acre. The highest price paid for unimproved land was \$45 per acre in 1929, when the Indian Reserve close to Fairview was opened up. Improved land has changed hands at prices ranging from \$5 to \$55, and one case was recorded of a sale at a figure approaching \$75, but this deal was not completed and the original owner repossessed the land. These prices parallel fairly closely those for the Melfort district of Saskatchewan during its development up to 1926.⁸ The table



FIG. 38—Flax in bloom on the Battle River prairie.



FIG. 39—A stand of hay.

does not show any marked trend toward higher land values chiefly because the greater number of purchases have been outlying farms or those on which the original homesteader had failed to make good. However, \$45 per acre was in 1930 a common valuation placed on the better class of lands which had been improved 50 to 75 per cent.

3. *Utilization of Improved Land*

The utilization of the farm lands under the above-mentioned forms of tenure in the Peace River Country indicates certain typical fringe characteristics. The most important crop is wheat, which with 80 acres per farm, claims approximately 45 per cent. of the improved acreage. Wheat is a cash crop which can be carried

⁸ Allen, *op. cit.*, p. 19, Table 12.



FIG. 40—Breaking.

FIG. 41—Scattered poplars on the ~~the~~ Rouce Coupé prairie.

FIG. 42—Lightly wooded country.

fairly long distances to outside markets, a necessary requirement for fringe exploitation. For the same reason, flax is sometimes grown. Oats are raised on 21 per cent. of the improved land, and other crops on 4 per cent. (see Table VII, Appendix). Coarse grain crops are for the most part retained on the farm for livestock feed.

Peace River enthusiasts have often spoken of the great fertility of the soil in the area and the tremendous crops which are reaped. Phenomenal yields are reported from time to time and 40 to 50 bushels of wheat per acre on new breaking are not unknown. The average in 1929 for the sample group was 28 bushels on new breaking, 22 bushels per acre after summer fallow, and 17 bushels per acre on stubble land—the average for all wheat land being approximately 20 bushels. While this is above the average yield for the Prairie Provinces, it indicates that phenomenal yields are the exception rather than the rule. Wheat, however, with special emphasis on the early-maturing varieties, will continue to be the staple of Peace River Valley farming. Oats have always been a good crop. The average for 1929 on the farms surveyed was approximately 45 bushels per acre with much higher yields on some of the new land. In 1929 barley yielded in some districts as low as 20 bushels per acre, and in others as high as 40 bushels per acre.

In this area the fallow land comprised 15 per cent., a proportion which is considerably smaller than would be found in many older regions of the Prairie Provinces where the conservation of moisture is of importance or where the land has become infested with weeds⁹ through constant cropping. There are many places where one-third of the improved farmland is summer-fallowed each year, and in southern Alberta the proportion often reaches one-half. It is in the proportionate amount of breaking (15 per cent.) in which the Peace River area is very different from the older areas such as Melfort, where only 2 per cent. of the cropland was in new breaking in the year 1926. Since the fringe farmer starts out on virgin land, it is necessary for him to spend much of his time preparing that

⁹ Noxious weeds are finding their way into the area chiefly through the seed importations from outside areas. Settler's effects often carry with them weed seeds that are scattered on the ground around the points at which they are unloaded. Natural carriers spread them still farther as the years go on. Up to the present, there are few very destructive weeds in the area which cannot be controlled by hand pulling, occasional summer fallowing or seeding of short season crops such as green-feed (oats). Investigators found the following weeds in the areas of original settlement: wild buckwheat, stinkweed, wild oats, Ontario ball mustard, and shepherd's purse. The fringe districts remote from the railway contained few weeds of any kind. From observations made in 1930 it would appear that the Peace River will face the same weed problem as is found throughout other areas of Western Canada, where the situation has sometimes become so severe that whole sections of the country have been abandoned.

land for future production by clearing and breaking.¹⁰ In the older sections, on the other hand, the larger part of the arable land has already been broken, and only a very small acreage is added annually to continue the expansion of the cropland and increase the value of the property.

4. *Values of Farm Property*

The investment per farm in Census Division No. 16 is given as \$5,463, of which \$3,086 is in land, \$785 is in buildings, \$784 in machinery and \$808 in livestock. The capital investment as estimated from the survey schedules gives somewhat higher figures for the Peace River Country than the census gives for the district. The total average capital per farm for the 330 farms giving the information is \$11,847 of which \$7,640 is land valuation, \$1,535 is in buildings, \$1,332 in machinery, and \$1,340 in livestock. These figures are approximately double the figures given in the census. The discrepancy in the gross figures is partly due to the fact that the farms visited were somewhat larger than the average for the district, and also in part to the fact that the land values increased to some extent during the period of expansion from 1926-1930, which was the interval between the gathering of the two sets of figures. Census enumerators asked the question in such a way that the farmer gave the value of his farm according to the amount at which it could be sold at that time without a forced sale, whereas the survey investigators asked the question in such a way that the farmer would value his farm according to the price which it would bring in 1929-1930. These three differences probably explain the discrepancy. However, the proportions of capital devoted to the four divisions are quite comparable. The census figures for 1926 give 57 per cent. land,

¹⁰ The nature of the virgin land in the parkland Peace River area is such that considerable work must be done with the axe and stump puller before the breaking plough can turn the sod. Clearing in this way is usually done during the slack periods or when it is impossible for the homesteaders to obtain employment outside. It is a slow process for one man and sometimes requires months of steady work to clear a few acres. Breaking is becoming more and more a contract job done on a per acre basis by large tractor outfits. The machinery must be of sufficient size and strength to cut through heavy roots and low scrub. Costs of breaking in 1930 ranged from about \$4.50 per acre at the lowest to \$7 or even \$8. Of course, a certain amount of this breaking is done by the operator himself with his own small outfits but this is a slow inefficient process and many of the larger roots are not taken out for a number of years. It must be kept in mind, however, that even under the system of power machinery breaking, the amount of land turned over in this way is relatively small due to the lack of capital with which to pay the contractor. Costs on the cash basis for the complete operation of clearing and breaking ranged from \$10 to \$20 per acre according to the difficulties of the task. However, most of the clearing was done by the operator himself or by unpaid family help. Consequently, the cash outlay was to that extent reduced. There are many cases in which the settlers traded work in order to obtain the use of large outfits for breaking.

14 per cent. buildings, 14 per cent. machinery, and 15 per cent. livestock, while the survey schedules give 65 per cent. land, 13 per cent. buildings, 11 per cent. machinery, and 11 per cent. livestock. Comparing these figures for Peace River with those for the Melfort district, mentioned above, and for Census Division No. 8, Alberta, it is significant that the Peace River sample has less than half of the average total capitalization of the Melfort sample

TABLE XVIII—COMPARATIVE TABLE OF VALUES OF FARM PROPERTY

AREA	NO. OF FARMS	TOTAL (dollars)	LAND (dollars)	BUILDINGS (dollars)	MACHINERY (dollars)	LIVESTOCK (dollars)
		<i>Value per farm</i>				
Alberta, Census Division No. 16*.....	2,796	5,463	3,086	785	784	808
Alberta, Census Division No. 8*.....	9,059	11,468	7,075	1,833	1,256	1,304
Peace River sample 1930.....	330	11,847	7,640	1,535	1,332	1,340
Melfort sample 1926**.....	106	24,643	15,562	4,651	2,492	1,938
		<i>Per centage Distribution</i>				
Alberta, Census Division No. 16*.....	....	100	57	14	14	15
Alberta, Census Division No. 8*.....	....	100	62	16	11	11
Peace River sample 1930.....	....	100	65	13	11	11
Melfort sample 1926**.....	....	100	63	19	10	8

* *Census of Alberta, 1926.*

** *Allen, op. cit., p. 30.*

and the Census Division No. 16 figure for the fringe area is less than half that for the older region of Census Division No. 8 (see Table XVIII).

A glance at Census figures shows that Census Division No. 16 had a smaller percentage of the total valuation in land and buildings than Census Division No. 8, the older, well-settled area, but on the other hand, the fringe had a slightly larger percentage of the total valuation in machinery and livestock. The Peace River sample figures indicate that the land values which increased during the good years of 1927 to 1930 are slightly higher on the

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percentage basis than are those in the older sample of Melfort. The proportion for buildings is smaller in the Peace River than in the older area (13 per cent. as compared to 19 per cent.). The fringe farmers generally begin the development of their farms with cheap buildings, and it takes some time before they begin to improve them. After the erection of the first set of buildings most of their available capital is used to buy more machinery, and later, land (see Chapter VI, section 2). Machinery¹¹ accounts for 11 per cent. of the average capital valuation in the Peace River



FIG. 43—Not all farm implements are manufactured by the larger concerns.



FIG. 44—Registered shorthorns on a farm near Wembley.

study and 10 per cent. in Melfort. Livestock seems to be a more important item to the Peace River farmers than to those of Melfort (11 per cent. as compared to 8 per cent.).

Table VII, Appendix, also gives the average capital according to the size of farm in the Peace River sample. From this table it is noteworthy that as the size of farm increases the average values of land, buildings, and livestock do not increase as rapidly as those of machinery. In other words, in proportion to their total

¹¹ The trend toward increased mechanization in agriculture which occurred during and after the war is seen in the Peace River. The pioneers no longer continue for many years with the crude hand-methods of cultivation. Most of the individuals who have had previous farm experience before entering the country have become accustomed to the use of machine methods, and for that reason have bought the machinery at the first opportunity. In the areas of original settlement in the Peace River Country there are many farms whose accumulation of agricultural machinery would rival the best to be found in the older areas in other parts of Western Canada. One of the larger farmers in the Rolla district of the Peace River Block of British Columbia purchased \$13,000 in machinery in the survey year 1929-1930. He had a complete line of tractor tilling equipment as well as a combine harvester and other machinery for cleaning grain and trucking it to the end of steel.

capitalization farmers with smaller holdings appear to have less machinery than their neighbours with larger holdings, but they have relatively better buildings and livestock.

5. *Indebtedness of Operators*

With increased capital investment comes also the mortgage. The Peace River Country is no exception to this general rule. It has now reached the stage where most of the farmers are working, partly at least, on borrowed capital.

While it has been shown above that the present capital value of all farm property in the Peace River Valley averaged over



FIG. 45—A farm near Hythe where horses are being displaced by tractor power.

\$11,000 per farm for the farms surveyed, it must not be imagined that this is the average net worth of the farm operator. From this amount must be deducted the debts. Information regarding indebtedness was obtained from 323 of the farmers visited; 235 of these reported themselves in debt; 109 had placed mortgages on their farms; 98 owed money on their implements and 14 on lumber; 75 had failed to "square up" their general store bill;¹² 146 had borrowed from the banks; 16 reported other miscellaneous debts.

Table XXVII in Chapter V shows the present indebtedness in the various categories and gives the average for farms having each type of debt, and the average for the 323 farms that recorded this information. The average debt per farm was \$1,377. Of this amount \$779 was borrowed on mortgage, \$344 was owed to banks, \$162 to implement companies, \$26 to merchants, and \$13 to lumber companies.

¹² See note in Appendix re the use of indebtedness in the tabulation of expenditures.

Eighty-eight farmers reported themselves free from debt. Thirty-one of these were owners or occupants of quarter-section farms and 27 had half-section farms; 17 were in the 480 acres class. Only 7 out of 50 of the owners of section farms and only 6 out of 44 of the operators of more than a section of land reported themselves free from debt.

The average indebtedness for all farms which had debt amounts to \$1,893.¹³

6. *The Relation of Debt to the Average Capital Investment*

In order to understand the importance of the debt incurred by farmers it is necessary to compare the amount of indebtedness with the present value of their total assets. An attempt has been made to do this on the basis of the "size of the farm". Table VII, Appendix, gives the average capital value for all farm property according to size of farm, and Table VIII, Appendix, gives the average debt per farm according to the same classification. When these figures are compared it is found that the average amount of debt for all farms is 11.6 per cent. of the total assets. The average value of assets for the farms up to 160 acres is \$3,664 and their liabilities average \$214, or 5.8 per cent. of their assets. For the half-section farm the total assets are, on the average, \$9,997 and the liabilities, \$912, or 9.1 per cent. of their assets. The average value of assets for the three-quarter section farms is \$13,407 with liabilities of \$1,464, or 10.9 per cent. On the section farms the average value of assets is \$18,661, and average liabilities, \$2,469, or 13.2 per cent. of their assets. For farms of one and one-quarter section, values average \$24,632 and the liabilities, \$3,530, or 14.3 per cent. This suggests a steady progression of the ratio of liabilities to assets, from the small farms to the larger, indicating that as a man becomes established and increases his holdings, his willingness and ability to borrow is more than proportionately increased. For farms of one and one-half sections and also for

¹³ During the period of expansion of the agricultural area preceding the survey, much use was made of credit facilities in the area for buying machinery and also for purchase of land. There were cases in which the farmers were given tractors almost entirely on credit. One farmer living 10 miles north of Grimshaw bought a Hart-Parr tractor in the spring of 1930 and made no cash payment whatsoever. He merely signed a note to pay in the fall after he had threshed his crop. There were individual cases also in which land was bought with the promise to make the first payment when the crop was taken off in the fall of the year. In those cases where risks were great, 10 per cent. was not an uncommon rate of interest. Banks charged this rate regularly in the Valhalla area for short-term loans. The usual rate for average risks was about 7½ per cent. for short-term loans and from 5½ per cent. to 7 per cent. for long-term mortgage loans.

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the class exceeding one and one-half sections, the ratio of liabilities to assets is lower, being 8.7 per cent. for the former and 11.9 per cent. for the latter group.

These figures would seem to indicate that the farmers of Peace River Valley are not heavily encumbered, although in the case of some of the larger farms the ratios are exceptionally high, with some individual cases running as high as 45 per cent. of the total assets. However, it must be remembered as stated above, that approximately 25 per cent. of the farmers reported themselves clear of debt, and the averages here quoted are for all farms recording the information, whether they had debt or not. If the 25 per cent. representing the unencumbered farms were omitted from the base, the resulting average indebtedness of the farms actually encumbered would be correspondingly increased. It is further to be noted that in this area of recent and rapid development, the increase in the land values is abnormal to some extent but, even allowing for this, the encumbrance seems light when compared with the conditions prevailing in other regions in Western Canada and in the United States.¹⁴ It is also evident that in ordinary times in any other industry an entrepreneur whose liabilities did not exceed 15 per cent. of his total assets would be considered to be in a strong financial position.¹⁵

Since the average capital valuation per farm was \$11,847 and the average indebtedness \$1,377, the average equity of the operators in their farms was \$10,470 (89 per cent.). This probably appears high, for these farmers have been on their holdings for an average of only 10 years. Increase in land values accounts for a part of this. It is typical of a developing fringe that as the country opens up and as the railway and institutional services enter, there accrues an unearned increment in land values. However, this increase in land values does not account for the whole amount; savings reinvested in land and equipment are an important factor. It must also be remembered that some of the settlers entered the country with substantial initial capital.

¹⁴ Wm. Allen, *The Farm Business in Saskatchewan* (Saskatoon: College of Agriculture, University of Saskatchewan, 1927); Wm. Allen, *The Farm Business in Saskatchewan, Survey of the Melfort District*, (Saskatoon: College of Agriculture, University of Saskatchewan, 1928). Wm. Allen, *The Farm Business in Saskatchewan, Survey of the Alameda District* (Saskatoon: College of Agriculture, University of Saskatchewan, 1930).

¹⁵ It must be kept in mind, however, that the ratio of liabilities to assets changes according to the fluctuations in the price level. The above figures apply to the conditions for the years 1929 and 1930 when land and other values were relatively high. Since that time the capital value of assets has greatly decreased but the liabilities have remained the same in terms of dollars. This has meant a very great increase in the ratio of liabilities to assets with the deflation of prices.

AGRICULTURAL DEVELOPMENT COMPARISON 87

Initial Capital and Net Worth of Peace River Families

For the 311 farmers for whom we have complete data, the average initial capital was \$2,692. (Two farmers, one with \$80,000 initial capital and the other with \$50,000 were not included in the average.) The average net worth of these 311 farmers was \$11,614 including equity in the farm and equity in outside capital holdings. That means that the net savings of the Peace River sample farmers in their ten years of average occupancy amounted to \$8,922, a part of which, as mentioned before, was unearned increment in land values.

TABLE XIX—INITIAL CAPITAL AND AVERAGE NET WORTH OF PEACE RIVER FARMERS

INITIAL CAPITAL (dollars)	NO. OF FARMERS	AVERAGE NET WORTH (dollars)
0 - 399.....	110	8,955
400 - 799.....	40	9,814
800 - 1199.....	37	10,633
1200 - 1599.....	25	12,438
1600 - 1999.....	6	6,365
2000 - 2399.....	22	15,592
2400 and over.....	71	15,975
Whole Area.....	311*	11,614

* 2 operators whose initial capital was \$50,000 and \$80,000, respectively, not included. Nineteen records were omitted from this sample group, because of incomplete data.

Table XIX showing the number of Peace River farmers according to initial capital groups of \$400 indicates that the largest number of farmers were worth (in cash and unencumbered capital assets) less than \$400 when starting operation of their present farms. Examination of the individual records shows that over one-third of these 110 farmers were worth \$10 or less. The range (for the entire group) was from \$200 below the line of solvency to \$80,000. Only two farmers had over \$15,000 initial capital. Slightly over one-half of the farmers entered the country with less than \$1,000 initial capital.

Since the average capital valuation of the farm was \$11,847 in 1930 and since this seems to be not more than is on the average required to support farm production, it is quite logical to assume that those farmers, starting their farming enterprise in the fringe

region with substantially less than that amount, would be greatly handicapped. It is typical of the fringe settlers that they should be required to spend a considerable length of time in building up the farm capital at the expense of present operation and present standard of living, many of them starting with nothing but a willingness to work. It is little wonder, then, that many with small amounts of initial capital should become discouraged in the first few years and move on to other parts. There are records of the amounts of initial capital only for those settlers who have remained on their holdings. Yet it is probable that the large numbers who have settled and have subsequently moved on were among those whose capital at the start was very small, that this prejudiced their chances of effecting successful settlement.

Table XIX also presents the average net worth of operators according to \$400 groups of initial capital. It would appear that initial capital is correlated with final net worth. In the group having less than \$400 initial capital the average net worth of the farmers at the time of the survey was \$8,955, while in the highest group, in which the initial capital was over \$2,400, the average net worth was \$15,975. This seems to indicate that those farmers who enter a fringe region with insufficient capital with which to begin their operations, will not progress as rapidly nor to as great heights of economic success as will those with large initial capital.

An analysis of the sources of income with which this net worth has been built up in this fringe region makes clear certain other characteristics of the pioneer fringe.

8. Sources of Cash Receipts

As indicated above, the settlers who enter a fringe area such as the Peace River Country generally have only very small surpluses available with which to begin the development of the farm. Those who have accumulated large amounts of savings do not usually migrate to the fringe, since they are not forced to select cheap farm land with its lower security in return for the labour expended upon it. Neither are they anxious to face the lack of social and educational facilities which are a part of fringe living. For this reason, then, there prevails a dearth of working capital for developing the farm and for satisfying the material wants of the household. Aside from savings there are two main sources from which the family may draw income in the first years of settlement: from the

farm itself and from outside labour. In the first year the undeveloped farm cannot produce even sufficient vegetables for the family, since newly broken land will not produce even an average crop under the best of climatic conditions until the second year. Besides, the few animals which are owned by the fringe settlers must be retained as breeding stock, and cannot easily be used for immediate consumption by the family. Since it requires a great deal of capital and labour to clear and break sufficient land to produce a marketable surplus, a number of years pass before the total family income can come from this source. Thus earnings from employment elsewhere than on his own farm are an important source of income for the settler during the first stages of development unless, of course, the operator has sufficient initial capital to carry him over these first years.

As the settler gradually becomes established, and begins to produce food not only for actual consumption, but also a marketable surplus, a change in the means and modes of living takes place. This change requires that more attention be paid to the development of transportation, educational and other services of the community.

The average total cash receipts from farm and other sources for the 313¹⁶ Peace River farmers reporting complete data, was \$2,184. The median was \$1,789, indicating that a larger number of farmers were in the lower groups than in the higher ones. The largest number of farmers were in the group having cash incomes of \$1,000 or less. The range was 0 - \$10,945.

The fringe characteristics of the Peace River area are indicated by comparison with three older areas in Western Canada and United States (see Table XX). It is apparent that the Peace River averages are lower than are those of the older areas. Average cash receipts are highest for the Minnesota sample (\$3,647), while those for Kindersley-Turtleford (\$2,559) are somewhat higher than those for Peace River (\$2,184). The Kindersley-Turtleford sample contains a number of fringe farmers which accounts in the main for the fact that it approaches the Peace River figure. The same tendency is indicated by the other averages and ranges given. The Peace River fringe has more of its farmers in the

¹⁶ These 313 farmers include only those who have reported complete data on all items of income and expenditure. The 19 records which were discarded for this and other sections of the analysis were chiefly those whose reports did not cover a complete year's operation, since they had begun homesteading only a few months prior to the survey. Others were discarded since their main income was not derived from the farm.

lower income groups than have any of the old-settled areas mentioned. This fact implies that, in comparison with these other areas, the Peace River fringe provides for its people a smaller net return for their efforts and therefore a lower scale of living.

As mentioned above, cash receipts come from two general sources; from the farm itself and from outside sources, whether labour or investments. It is typical of the fringe, most certainly of the Peace River, that a larger proportion of its cash receipts comes from outside the farm than in older areas. In the Peace, \$378 or 17 per cent. of the cash receipts is from outside sources and \$1,806 or 83 per cent. is from the farm. An analysis of the sources

TABLE XX—COMPARATIVE TABLE OF AVERAGE CASH RECEIPTS

REGION	YEAR	NO. OF FAMILIES	CASH RECEIPTS			
			Mean (dollars)	Median (dollars)	Modal Group (dollars)	Range (dollars)
Peace River*...	1930	313	2184	1789	0-999	0-10,945
Kindersley-Turtleford, Sask.†	1930-31	378	2559	1990	1000-1999	269-20,098
Olds, Alberta*...	1931-32	124	2599	2210	1000-1999	469-11,744
Minnesota†....	1927-28	226	3647	2810	1000-1999	375-42,173

* Data derived from Canadian Pioneer Problems Committee surveys in the Prairie Provinces.

† C. C. Zimmerman: *Incomes and Expenditures of Minnesota Farm and City Families* (St. Paul: University of Minnesota Agricultural Experiment Station, Bulletin No. 255, 1928), p. 5.

of receipts from the farm gives indications of the types of farming practised at present in the Peace River area.

The Peace River Valley is frequently referred to both as a great wheat-growing area and as an ideal mixed-farming country. Both statements are true, at least so far as they refer to certain areas in the Peace River Valley, but there are sections now settled which can by no stretch of the imagination be called grain-growing areas, and there are areas of fertile land in which the scarcity of water makes anything except grain growing practically impossible. No one phrase will adequately describe the type of farming practised in the whole area; physical conditions are so different, and the stages of development vary so greatly that any term used must fail to do justice to the variety of types found in the Valley.

The first difficulty is encountered in an attempt to define "types

of farming". Sometimes this definition stresses the utilization of the land; sometimes the source of income is the decisive element; at other times the deciding factor is the percentage of the capital investment in various projects. All of these bases are utilized in the present study but no attempt is made to rely on one to the exclusion of others.

Of the total cash receipts from the farm (\$1,806), 81 per cent. comes from crop sales, mostly wheat, 15 per cent. from livestock, and 4 per cent. from other farm products. Usually in a fringe



FIG. 46—This farm's water supply is secured from a waterhole or dug-out.

region a single product, such as wheat, is used as the chief source of income. Since the fringe region must depend upon markets which are many miles distant, it is necessary to produce a commodity which can be shipped long distances without deterioration in transit. Both wheat and livestock fulfil this requirement. It is to be expected that the farm products such as milk, butter, eggs and vegetables would be very insignificant sources of cash receipts to the farmers of the Peace River. These products require rather specialized care both in production and transportation. Consequently they are produced in very small quantities in this area where local markets are so limited, and where the technique of production has not reached a high stage of development in any but a few commodities.

Further analysis of the sources of cash receipts from outside the farm indicates certain significant features of the pioneer fringe. As mentioned above, \$378 or 17 per cent. of the total cash receipts for the whole area were from sources outside the farm. This is much larger than the 4 per cent. which is the figure for the Melfort sample.¹⁷ A group of 193 farmers (62 per cent. of the Peace River sample) utilized these sources to obtain income. Of these, 59

TABLE XXI—SOURCES OF CASH RECEIPTS NOT ARISING FROM THE FARM ENTERPRISE (313 Peace River Farms)

SOURCE	AVERAGE (dollars)	PERCENTAGE
<i>Outside Labour</i>	98.14	26
Harvest.....	9.81	3
Road.....	14.04	4
Railway.....	7.84	2
Lumber.....	13.29	3
Trapping.....	9.84	3
Other labour (mostly farm).....	43.32	11
<i>Non-Labour</i>	71.72	19
Interest.....	7.83	2
Legacy.....	16.37	4
Fees.....	7.28	2
Rent.....	5.61	2
Other (pensions, salaries, etc.).....	34.58	9
<i>Custom Work</i>	208.29	55
All Sources Outside Farm.....	378.15	100

per cent. utilized only one source, 31 per cent. two sources, 8 per cent. three sources, 2 per cent. used four sources, and one man, (0.5 per cent.) utilized five sources (see Table IX, Appendix, for the number of farmers involved in each of the various sources of outside income.) It is typical of fringe areas that so many farm operators should, during the early years, have to go outside the farm, to obtain the necessary supplementary income.

The various special types of receipts from sources outside the farm are presented in Table XXI. According to these figures, 55 per cent. of these outside receipts are from custom work,¹⁸ 26

¹⁷ Allen, *op. cit.*, p. 49.

¹⁸ Work done with capital equipment for neighbours, such as breaking, ploughing or threshing.

per cent. from outside labour and 19 per cent. from non-labour sources. Comparing these percentages with those of the Melfort sample, it is interesting to note that custom work, the item which requires considerable capital, accounts for a much larger proportion (76 per cent.) in the Saskatchewan study than in the present one, while outside labour items account for only 18 per cent. in the former as compared with 26 per cent. in the latter. The absolute amounts of all items of income from outside sources are larger in the Peace River sample than in that for the Melfort district.

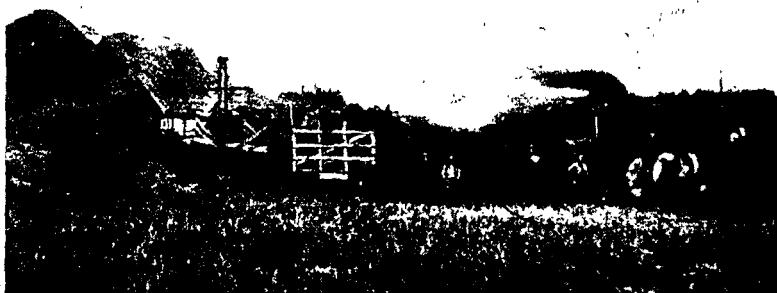


FIG. 47.—The owner of a large threshing "outfit", such as this, supplements his farm income by threshing for his neighbours.

9. Farm Operating Expenses¹⁹

The next consideration in the analysis of the farming business is the actual cash expenditure which the farmer has made in carrying on his enterprise. Complete information in usable form was obtained from 258 farms.²⁰ Table XXII sets forth in detail the various items of cash expenditure.²¹

¹⁹ See also Chapter VI for relation of farm-operating expenses to other items.

²⁰ This is a selection from the 332 farm records which constitute the original sample. Of this original sample there were many holdings which had only recently been taken up and these were deleted for this section. Most of those deleted were of new homesteaders who had been on their holdings less than a year before the beginning of the survey-year of 1929-30. The sources of cash income for this group of 258 farmers is given in Table X, Appendix. The trends are fundamentally the same as for the 313 farmers used in Section 8 of this chapter.

²¹ In the analysis of the modes of living in Chapters VI and VII the basis of expenditure differs from that in Table XXII in that the non-cash items of unpaid labour and board of labour have not been used. See Appendix A for methods of tabulation of various items.

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TABLE XXII—FARM EXPENSES OF 258 PEACE RIVER FARMS

ITEM	NO. FARMS HAVING ITEM	AVERAGE PER FARM HAVING ITEM (dollars)	AVERAGE FOR 258 FARMS (dollars)	PER CENT. OF TOTAL EXPENSES
Paid labour.....	208	352.07	283.84	18.26
Hired field work.....	110	209.62	89.37	5.75
Cleaning seed.....	26	7.74	.78	.05
Seed bought.....	192	62.24	46.32	2.98
Formalin, etc.....	236	2.92	2.68	.17
Feed bought.....	68	71.59	18.87	1.21
Feed grinding.....	109	18.31	7.74	.50
Equipment repairs.....	225	36.53	31.86	2.05
Binder twine.....	249	41.15	39.72	2.56
Tractor costs.....	65	461.01	116.15	7.47
Hired threshing.....	201	251.13	195.65	12.59
Board of crew.....	59	60.62	13.86	.89
Separator costs.....	26	42.23	4.26	.27
Auto (farm use).....	138	86.50	46.27	2.98
Truck costs.....	14	322.14	17.48	1.13
Hauling hired.....	109	164.48	69.49	4.47
Misc. gas and oil.....	207	12.36	9.92	.64
Blacksmith.....	210	17.28	14.07	.91
Building repairs.....	53	92.83	19.07	1.23
Paint and painting.....	29	26.34	2.96	.19
Fencing costs.....	122	49.35	23.34	1.50
Pasturing stock.....	34	24.93	3.29	.21
Small hardware.....	214	19.37	16.07	1.03
Breeding fees.....	76	20.14	5.93	.38
Hail insurance.....	5	24.00	.46	.03
Fire insurance.....	47	28.94	5.27	.34
Taxes.....	254	90.61	89.21	5.74
Telephone.....	49	10.61	2.02	.13
Farmers' organizations	45	4.59	.80	.05
Veterinary medicine ..	83	10.35	3.35	.20
Salt.....	238	12.41	11.45	.74
Sprays and other.....	11	6.99	2.98	.19
Total cash operating expenses.....	258	.....	1,194.51	.....
Board of paid labour..	208	108.48	87.45	5.63
Unpaid family labour..	124	317.33	152.52	9.81
Board of family labour.	123	250.93	119.63	7.70
Total operating expenses.....			1,554.11	100.00

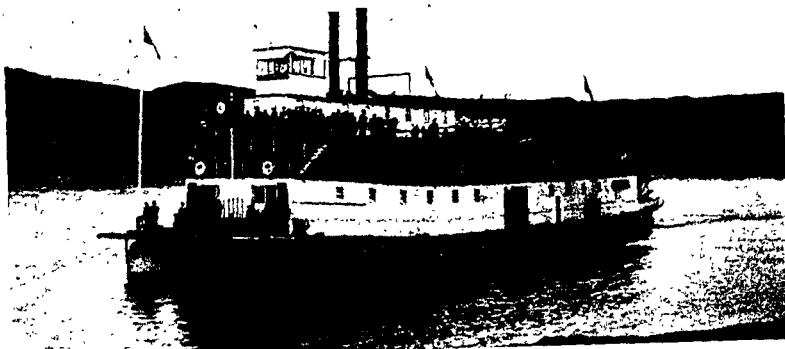
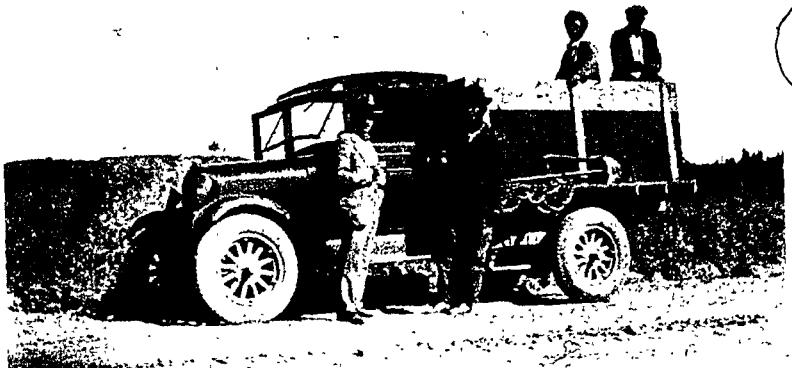


FIG. 48—The truckman on the Battle River highway carries both freight and passengers.

FIG. 49—The river-crossing at Taylor's Flats. Beyond the railway the truck provides transportation.

FIG. 50—Water transportation is still important to the distant points of Fort Vermilion and Hudson Hope, although the Peace is a treacherous river for boats of this size.

The most important item of farm expense is the cost of paid labour. Out of a total farm expense of \$1,195, the cash cost of labour accounts for \$284 or 18 per cent. of the total. In addition there is an average amount of \$89 per farm paid for hired field work, which includes not only man-labour but horse-labour and the hire of implements used. This condition is comparable to those shown by other studies of older farming areas. In the Melfort study, mentioned above, it was found also that the cash cost of paid labour was 25 per cent.²² of the total farm-operating expense.

The next most important item is the threshing bill which accounts for over \$195 or 13 per cent. of the total. In Melfort the figure is 13 per cent.²³ The tractor costs for 65 farms which reported this item amounted to \$461 per farm; when calculated on the basis of 258 farms, this sum is reduced to \$116 per farm.

Taxes also constitute a considerable item although the tax rate in the Peace River Valley is more moderate than in many sections of the Prairie Provinces. The amount, \$91 per farm, while important, is not excessive when compared to the \$191 per farm in Melfort.²⁴ In the latter area, of course, the total cash expenditure is much greater and the population much more able to bear this greater taxation.

An item of cash operating expense which bulks larger in the Peace River Valley than in older settled areas is the cost of hauling grain and other produce to the railroad. The average for 109 farms which reported this item is \$164 and the average for 258 farms is \$69. In the Melfort area²⁵ the item is not even mentioned in a separate category which would lead one to believe that, due to the proximity of railway services, it is quite unimportant.

To the actual cash expenses must be added various amounts representing values in kind. These items are the value of board of paid labour, the value of the unpaid labour contributed by the members of the family other than the operator himself, and the value of the board of the unpaid labour. These amounts have been added in Table XXII to cash expenditure and bring the total operating expenses for the 258 farms up to \$1,554. This table also shows in the last column the relative importance of the various items of operating expense on a percentage basis.²⁶

²² Allen, *op. cit.*, Table 32, p. 52.

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ See Appendix C for an analysis of certain farm efficiency factors: labour income, comparison of 20 farmers with highest labour income with 20 lowest, factors in farm organisation, etc.

CHAPTER V

AGRICULTURE IN THE SUCCESSIVE ZONES OF SETTLEMENT IN THE PEACE RIVER AREA*

IN previous chapters effort has been directed toward the definition of the fringe, particularly in its agricultural aspects, by comparing the Peace River with certain older areas. Within the Peace River Country fringe conditions become progressively more apparent as one moves from its centre to the circumference. The samples which have been studied can be classified for three successive zones of settlement which correspond roughly to the stages of development which have already been presented in the earlier chapters of this work. Zone I¹ includes the areas of earliest settlement through which the railway and the main highway pass. This area is approaching the stage of centralization and regional autonomy. Zone II² represents the transitional area remote from the railway, but near the main highway, and corresponds in many ways to the stage of integration of agricultural settlements. Zone III³ is typical of the newly-settled fringe remote from both the railway and the main highway.

The farm records taken in these successive zones of settlement have been chosen with the aim of representing the respective zones as units. A relatively larger number of records have been taken from farmers in Zone I, the well-settled area, than in the other two. As mentioned in Chapter IV, this gives a heavier weighting to the well-settled type when the sample is averaged for the whole area. For the individual zones of settlement, however, the samples appear to be quite typical in most respects.

1. Size of Farm Holdings

Figures from the 1930 survey show that in Zone I the average size of farm was 475 acres, whereas in the fringe (Zone III) it was only 275 acres. Farms in the transitional area (Zone II), with 518 acres per farm, were on an average the largest. This is partly

* The material for this chapter was prepared by Professor R. W. Murchie.

¹ Includes the areas of Fairview, Berwyn, Whitelaw, Grimshaw, Grande Prairie, Wembley, Valhalla, Beaverlodge, Rio Grande, and their immediate constituent fringes.

² Includes the Rolla and Poucē Coupē areas and their constituent fringes.

³ Includes the three major fringe districts of Battle River, Clear Hills, and Hines Creek.

explained by the fact that the investigators visited relatively more of the large farms in this territory in proportion to the number to be found there. The range is much greater in Zone I than in Zone II or III. Half-section farms are the modal or common size in the well-settled and transitional areas and quarter-section farms in the fringe. This would seem to indicate that there has been little change in the techniques of homesteading in so far as the Peace River Valley is concerned, and that the quarter-section unit remains the most frequent in areas that are in process of settlement (see Table XI, Appendix, for the number of farms according to quarter-section classifications of occupied acreages). This would seem to suggest also that in the settlement of the Peace River Valley the usual progression from the quarter-section homestead is going on and the size of farm occupied is definitely related to the age of settlement.

The amount of improved land shown in Table IV, Appendix, is subdivided according to the successive zones of settlement. The modal group in the well-settled areas is from 101 to 150 acres of cropland; in the transitional area it is from 51 to 100 acres, and in the fringe from 1 to 50 acres. In the fringe sample there are 20 farmers with no cropland, while in the other two areas, Zone I and Zone II, there is only one such farmer in each sample. Most of these 20 farmers were among those who had just entered the area in the early spring of 1930. They were still erecting their first buildings and spending a great deal of their time in the outside areas at odd jobs, collecting money to "grub-stake" themselves for the coming winter, and to pay for what breaking they could get done during that year. There were others who had filed on their homesteads merely as a speculative venture, and who completed only the requirement of six months' domicile per year, hoping that the railway might pass close to or across their property before their rights were cancelled. If the railway came, they could then improve sufficient acreage to obtain their patents (titles) and then sell the land.

The range of improved acreage per farm is considerably greater in Zone I (0-800 acres) than in the two other (0-500 acres in Zone II and 0-250 in Zone III). The average improved acreage per farm in the fringe was only 31 acres while it was 161 in Zone II and 240 in the well-settled areas. These figures bring out clearly differences between the fringe and the well-settled areas. The farmer in Hines Creek cannot hope to get a satisfactory living from

31 acres of cropland, when the farmer in the Fairview area requires 240 acres for that purpose. The former seeks other sources of income apart from his farm in order to live and to build up a farm that will provide his whole living. For that reason, all of the savings which he can muster, above his bare living expenses, will be spent in investment on the farm.

2. Tenure of Farm Holdings

Land tenure of occupied holdings varies considerably from the centre to the circumference of an area and from the well-settled to the fringe areas. Table XXIII presents the number and percentage of farm operators holding land in the various classes of

TABLE XXIII—TENURE OF FARM HOLDINGS IN THE PEACE RIVER AREA

AREA	FARMERS		OWNERS		HOMESTEADERS (without patent)		OWNER- TENANTS		TENANTS	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Well-settled...	202	100	141	70	10	5	49	24	2	1
Transitional...	55	100	33	60	7	13	14	25	1	2
Fringe....	75	100	24	32	48	64	3	4	0	0
Whole area....	332	100	198	59	65	20	66	20	3	1

owner, homesteader (without patent), owner-tenant, and tenant. In the cycle of occupation of land, the first stage in the new fringe is that in which the great majority of the operators hold their land as homesteaders. This is borne out in the Peace River area where 64 per cent. of the farms in the fringe are held by this class but only 5 per cent. in the well-settled areas. These homesteaders, after performing their homestead duties automatically, become owners. Meanwhile, many buy up adjacent, cheap land, and in this way also become owners. In the well-settled and transitional areas there are 70 per cent. and 60 per cent. owners, respectively, while in the fringe there are only 32 per cent. who can be classed strictly as owners. In time, the progression towards greater numbers of owners will change and the numbers of tenants will increase as the land values increase, and as the settlers, whose initial capital is

usually small, find it impossible to purchase cheap land (see comparison of Peace River and outside areas in Chapter IV, p. 76). Already a tendency towards tenancy is shown by the fact that in the older areas 24 per cent. of the operators are owner-tenants.

A single illustration will suffice to typify the cycle of occupancy through which many of the settlers progress.

Mr. X, now farming near Fairview, is an owner-tenant. He left his Nova Scotia home at the age of eighteen and wandered out to Trail, B.C., where he took a job in the smelter works and saw-mills there. He also did work as a hired hand on a British Columbia farm until the age of twenty-six, when he migrated to the Peace River. This was in the year 1915. He filed



FIG. 51—Buildings on the site of an original homestead, now part of a half-section owned farm in the German community of Friedensthal.

on a homestead which was patented a few years after. In 1921 he had collected sufficient cash with which to buy the adjoining quarter section at the price of \$1,500. Again, in 1928, he was able to make a second purchase, this time on a credit basis, one-sixth cash and the balance in eighteen annual payments. Besides these three quarter sections which he owns, he has also been operating another quarter section which he has been renting on a share basis from a former neighbour.⁴

The succeeding sections of this chapter deal with operators regardless of the tenure of land holdings, but the fact that the form of land tenure varies from area to area must be kept in mind throughout.

3. *Utilization of Improved Land*

The utilization of improved land in the successive zones of settlement shows regional differences, similar to those found in the comparison of the Peace River with outside areas (see p. 78).

⁴ Field notes.

In the well-settled areas (Table XXIV) 49 per cent. of the improved land was used for the production of the cash crop, wheat. In the transitional area where transportation was inadequate, only 29 per cent. of the acreage was used for wheat; and in the fringe, where little if any of this product could be exported profitably, only 13 per cent. of the improved acreage was used for this crop. It is in these zones, therefore, that the feed crops, oats, barley, hay, and the like, are sown in greatest proportions. Thirty-seven per cent. of the improved acreages in Zone II and 38 per cent. in



FIG. 52—Brome grass.

the fringe are used for this purpose. In the well-settled areas only 22 per cent. of the improved area is in feed crops. Distance from adequate railway facilities is probably the chief factor involved here, but in the case of the fringe there is also the frost hazard. Oats ripen much more quickly than wheat and can stand more frost. For that reason it is grown more extensively than wheat in Hines Creek, Clear Hills, and Battle River. The frost hazard will likely diminish with the clearing of the bush and the drying up and draining of the swamps.

Variations in the yields of the principal grain crops indicate certain regional differences. Table XXV shows the average yields of the chief grain crops for the successive zones of settlement. It would appear from this table that the fringe is the most productive per unit for wheat and barley and the transitional area for oats. This is due chiefly to the fact that in the newer areas the crops have been sown mainly on recently broken land, and also to the

TABLE XXIV—UTILIZATION OF IMPROVED LAND BY DISTRICTS
PEACE RIVER AREA

	TOTAL		ZONE I		ZONE II		ZONE III	
	Acres	Per cent.	Acres	Per cent.	Acres	Per cent.	Acres	Per cent.
Wheat.....	80.7	45	118.4	49	47.4	29	3.9	13
Oats.....	38.0	21	46.6	19	46.7	29	8.7	28
Other crops	7.9	4	7.9	3	12.8	8	3.1	10
Fallow.....	27.2	15	37.2	16	26.6	17	0.9	3
Breaking...	26.7	15	31.1	13	27.6	17	14.3	46
TOTAL.....	180.5	100	241.2	100	161.1	100	30.9	100
Number of Farms...	331*		201*		55		75	

* One farm rented; 150 acres improved. No data on utilization.

fact that only the best lands are brought under the plough in the first years of settlement. In the older areas progressively poorer lands are broken. It is quite likely that if the oats were not sown on breaking (of the first year) in the fringe, the yield would be higher in this case also, since new breaking does not produce the best results until the second year when the wild vegetation has had a chance to rot in the soil.

It is significant that an average of 14 acres or 46 per cent. of the total improved acreage in the fringe consists of breaking. The absolute amount is considerably less than is found in the other areas. This may appear somewhat strange since, as has been pointed out, this area is all very recently settled. The explanation, however, is that the clearing of land and the lack of capital prevent

TABLE XXV—ACREAGE AND AVERAGE YIELD OF CROPS IN PEACE RIVER AREA
IN 1929

DISTRICT	WHEAT		OATS		BARLEY	
	Acreage	Yield per acre (bushels)	Acreage	Yield per acre (bushels)	Acreage	Yield per acre (bushels)
Zone I.....	23,749	18.9	7,241	37.8	491	25.1
Zone II.....	2,606	25.9	2,159	46.6	35	21.6
Zone III.....	201	27.0	509	41.6	16	38.1



FIG. 53—Wheat in the shot-blade (the stage just before heading), 8 miles from Fairview.

FIG. 54—Wheat growing on the Sunset Prairie "fringe".

FIG. 55—Making a start on raw land near the highway 50 miles from the railway.

the new settler from breaking a large acreage during the first few years. The erection of buildings also consumes much of his time. The uncertainty concerning the coming of the railway hinders further the settler from breaking a large acreage. Nevertheless, the percentage of breaking for the total amount of improved land is much greater in the fringe region than in the other two. In Zone II only 17 per cent. of the improved land is in breaking, and in the well-settled areas only 13 per cent. These figures indicate in no uncertain fashion that the fortunes of the fringe settler lie in the future. While the farmer in Fairview is spending his time planting crops which will bring a return the same year, the settler



FIG. 56—The wooded background shows what preceded this hundred-acre cultivated field, which is the largest in Hines Creek

in Hines Creek is using his axe and his breaking plough on land which will not produce a crop until the second year.

It must be remembered, however, that breaking is still a very real factor in the yearly work of the farmer in the well-settled areas as well as in the fringe. Some of the farms in the former areas have reached the stage at which the large part of the arable land is already broken. During the survey of the Berwyn district one of the operators, whose farm was almost completely under the plough, claimed that henceforth he would reap a progressively smaller yield, just because he would not have new land each year to raise the average yield on the total acreage and that more and more of his land would require summer fallowing. This observation is apparently based upon the experience of farmers in the older parkland areas of the west where they have found that as the

land becomes older through continued cropping, the yields become progressively less, and methods must be evolved to retain the fibre and the fertility of the soil by summer fallow, rotation of crops, and sometimes by the use of fertilizers.

4. *Investment in Farms*

An important consideration in the study of the farmer's progress is the amount of capital invested in the farm. This amount may be calculated in several ways. Sometimes it is possible to take the actual capital, that is, cash, stock and equipment, which the farmer had originally put into his venture. In a rapidly-developing

TABLE XXVI—AVERAGE CAPITAL PER FARM
PEACE RIVER AREA

	TOTAL	ZONE I	ZONE II	ZONE III
Number of Farmers	330	202	55	73
Average present capital	\$11,847	\$15,072	\$11,366	\$4,163
Average value of land.....	7,640	9,647	7,065	2,533
Average value of buildings.....	1,535	2,023	1,349	358
Average value of machinery and equipment.....	1,332	1,949	1,300	483
Average value of livestock	1,340	1,453	1,652	789

country this becomes a poor measure of the capitalization of the industry since, as will be shown presently, the farmer turns back a very considerable portion of his income in cash and kind into the farm. For the purpose of the present study the capitalization is regarded as the approximate present value of the land, buildings, stock, and equipment.

The nature of the development of the farm, the amount of improved acreage, buildings, and the like, and the distance from transportation facilities and centres, all influence the valuation of the farm property and of the land in particular. Table XXVI presents the average capital per farm in land, buildings, machinery, equipment, and livestock for the three representative areas in the Peace River study. The farms in the well-settled areas have a total capitalization (\$15,072) almost four times as large as those of the fringe (\$4,163). The transitional area, lacking railway facilities and also lacking in the amount of improved land per



FIG. 57—Near Wembley. The original buildings on this farm have been supplanted.

FIG. 58—A farmstead in the Pouce Coupé district. The vegetable garden is in the foreground.

FIG. 59—The barns of a new settler on the outer edge of the Grande Prairie district.

farm, is considerably below the well-settled areas in total capitalization (\$11,366). Land values and machinery and equipment values per farm bear about the same relation from area to area as do the total capital figures. However, there are significant differences in the valuations for buildings and livestock. The average capital in buildings in the well-settled areas (\$2,023) is about six times that of the fringe (\$358). This is a greater difference than is found in any of the other items of capital investments in the farm. In the fringe region the amount of capital invested in buildings is very



FIG. 60—A remnant of ranching in the transitional zone near Rolla.

small. This is in keeping with the general tendency of sacrificing present comforts in order to build up the capital equipment of the farm.

The capital valuations of livestock also vary from area to area in different proportion from that of the other three major items mentioned in the foregoing paragraph. In Rolla, the transitional area, where transportation facilities are not highly developed, livestock constitutes a much larger proportion of the total capitalization (14.4 per cent.) than in the well-settled areas (9.7 per cent.). The same applies to the fringe where livestock has also a higher proportion (19.0 per cent.) than in the well-settled area. The fact that cattle are more easily transported than grain, since they can be driven out to the terminus of the railway, makes them a more profitable form of investment in the newer areas.

5. *Indebtedness of Farm Operators*

With increasing expansion and development, capital is needed. A regional analysis of the indebtedness of farmers in the Peace River will serve to indicate the use which is made of borrowed capital in the various stages of development. In Zone I the mortgage indebtedness accounts for over half of the total amount. In the same area the next most important item of debt is the amount owed to banks. In Zone II the average mortgage amounted to only 45 per cent. of the total debt, but the importance of mortgage combined with bank credits is the same as for the well-settled areas. However, in Zone III, although the amounts are all small, the most important item is the credit advanced by the implement companies, an item which is considerable in all groups. Table XXVII gives the complete data on indebtedness by districts.

Table VIII, Appendix, presents information on indebtedness according to the size of farm for the various areas. This table indicates that, while the average debt for all farms is \$1,377, the small farms of 160 to 320 acres showed proportionately smaller figures. For the reasons noted above, many of the newer farms were still in the homesteading stage and the operators' credit, perhaps fortunately for them, was small. The average indebtedness of the farms which extend to a section or more runs into the \$2,000 to \$3,000 class.

In the Fairview area of Zone I the average indebtedness for all farms is \$2,436, with the maximum class approaching the \$5,000 mark for farms of a section or more. In the Grande Prairie group, also of Zone I, the amount of debt varies considerably and reaches a maximum of \$5,500 for two of the largest farms. In the Berwyn area, the third in Zone I, 41 of the 52 farms reported debt, the average being \$1,931. The one-section farms (640 acres) were found to carry the heaviest indebtedness, the average for the 14 farms in this group being \$3,363. The Rolla district (Zone II) average of \$927 was exceeded by the average of all debt-reporting farms in that Zone which were more than three-quarters of a section in extent. In Zone III, 39 farms out of 71 reported debt, 22 of them being quarter-section farms which averaged only \$60. On the half-section farms the average was \$183; on the three-quarter section farms \$659; while for three farms in the section class the average was \$139.

A certain proportion of the indebtedness incurred is used for

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TABLE XXVII—PRESENT INDEBTEDNESS OF FARM OPERATORS IN THE VARIOUS DISTRICTS OF PEACE RIVER AREA

	TOTAL	MORTGAGE	IMPLE- MENT COMPANY	LUMBER COMPANY	BANK CREDIT	STORE CREDIT	OTHER DEBTS
ZONE I							
Number of farms having debt.....	159	91	72	14	108	43	10
Average debt for all farms recording any of this information (199).....	\$1,922	\$1,140	\$180	\$21	\$468	\$31	\$82
ZONE II							
Number of farms having debt.....	37	16	14	...	25	8	...
Average debt for all farms recording any of this information (53).....	\$927	\$418	\$215	...	\$283	\$11	...
ZONE III							
Number of farms having debt.....	39	2	12	...	13	24	6
Average debt for all farms recording any of this information (71).....	\$184	\$36	\$72	...	\$41	\$22	\$13
TOTAL FOR PEACE RIVER							
Total present indebtedness	\$444,823	\$251,481	\$5,260	\$4,306	\$111,143	\$8,408	\$17,225
Number of farms having debt.....	235	109	98	14	146	75	16
Average debt per all farms recording any of this information	\$1,377	\$779	\$162	\$13	\$344	\$26	\$53

annual expenditure on such consumption goods as groceries, hardware, and the like (see note in Appendix A, re use of indebtedness in tabulation of expenditures). However, this is only a small part (1 per cent. in the whole area) of the annual sources of money for expenditure purposes.

6. Relation of Debt to Average Capital Investment

The regional data on the relation between debt and capital investment serves to illustrate further the trend which was pointed out on page 87. It was there shown that the credit rating of farmers is more than proportionately increased as the size of the farm increases. When the assets and liabilities are summarized by districts, it is found that the latter forms the following proportions of the former: for Zone I, 12.7 per cent., for Zone II, 8.1 per cent., and for Zone III, 4.4 per cent. This would seem to indicate that there is a progression from the fringe to the well-settled stage of development in the proportion of the indebtedness to total capitalization. In Hines Creek, Clear Hills, and Battle River where the future and even the present is a matter of speculation as far as the economic prospects are concerned, due to the high mobility of the people and the physical hazards of frost and lack of security in regard to the future of the transportation facilities, it is to be expected that credit would not flow into the areas in great quantities. It is another concomitant of settlement as contrasted with un settlement.

It would appear also that the farmers of the Peace River Valley are not heavily encumbered, although for some of the larger farms, especially in the Fairview and Berwyn districts, the average indebtedness is exceptionally high, and in some individual cases it runs up to 45 per cent. of the total assets.

7. Initial Capital

In Chapter IV (sec. 7) it was shown that initial capital was directly related to present net worth. This tendency was indicated for the district as a whole, and observation of the individual records would substantiate this conclusion for the successive zones of settlement. It is, however, interesting to note here that there are differences in the amounts of initial capital of the settlers who went into the areas of earliest settlement, and of those who have entered the new fringes. Table XXVIII presents a

frequency distribution of the farmers according to initial capital groups in the successive zones of settlement. It would appear from this table that the initial capitals in the three zones are similar, except that men with large amounts of capital (over \$4,000) are attracted to the older settlements. The largest group in all areas is that under \$400 initial capital. A larger proportion of farmers are found in the highest initial capital groups in the areas of earliest settlement, Zones I and II, than in the fringe. This is further illustrated by the averages for the various districts. The average initial capital for Zone I is \$1,929, for Zone II, \$1,964, and for Zone III, the most recently settled, \$1,380. The problem of capital

TABLE XXVIII—INITIAL CAPITAL OF 313 PEACE RIVER FARMERS*

INITIAL CAPITAL (dollars)	ZONE I (No.)	ZONE II (No.)	ZONE III (No.)	INITIAL CAPITAL (dollars)	ZONE I (No.)	ZONE II (No.)	ZONE III (No.)
0- 399 . . .	71*	18	21	2000-2399 . . .	12	6	4
400- 799 . . .	21	8	11	2400-3199 . . .	16	2	5
800-1199 . . .	21	6	10	3200-3999 . . .	2	0	3
1200-1599 . . .	16	4	5	4000-and over	33	8	4
1600-1999 . . .	2	0	4				
				TOTAL	194	52	67

* Includes also 3 operators who were below the line of solvency.

is becoming increasingly acute as farming tends more and more towards mechanization, a type of farm organization requiring a great deal of capital equipment. The fact that the chances for the settlers to obtain employment outside of the homestead areas is also less than it was some years ago adds to the seriousness of the problem. More and more it is becoming necessary for the settlers to depend on their small initial capital to carry them through the first few years of lean living. The succeeding section will deal more specifically with the means by which farmers in the successive zones of settlement obtain their annual incomes.

8. *Cash Receipts as an Index of the Means of Living and the Types of Farming within the Successive Zones of Settlement*

The cash receipts from the farm, from outside labour, custom work, investments, legacies, etc., account for about 94 per cent.

of the money for cash expense; reduction of inventories and of capital investments account for 5 per cent., and operating debt for 1 per cent. (see Table XII, Appendix, showing sources of revenue).

Analysis of cash receipts from the farm indicates certain definite regional differences (see Table XXIX). The well-settled areas, which are near the railway, receive by far the largest part of their farm income (85 per cent.) from the sale of crops, chiefly wheat. In the transitional and fringe zones this item accounts for only 69 per cent. and 53 per cent. respectively. As previously shown, grain as a cash crop is limited in fringe districts. The table indicates that livestock and livestock products, as sources of income,

TABLE XXIX—CASH RECEIPTS FROM 313 PEACE RIVER FARMS

DISTRICT	No. of FARMERS	CROP		LIVESTOCK		FARM PRODUCTS		MISC.		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
Well-settled....	194	1,937	85	245	11	93	4	3	*	2,278	100
Transitional....	52	1,360	69	540	27	62	3	13	1	1,975	100
Fringe.....	67	165	53	108	35	31	10	6	2	310	100
Whole Area....	313	1,462	81	265	15	74	4	5	*	1,806	100

* Less than half of 1 per cent.

are of greater relative importance in the fringe than in the well-settled areas. They do not require the same amount of capital investment for their production and, since they have less bulk per unit of value, they can be transported more profitably to the end of steel. From this conclusion it might be imagined that the fringe farmer would gain considerably by putting all of his efforts into livestock production. It must be remembered, however, that it requires time and capital to establish a herd of cattle or a drove of swine. Further, the undeveloped state of the fringe farms does not provide sufficient winter feed for large numbers of livestock, and thus specialization in these products is limited.

The importance of earnings not derived from the farm enterprise is characteristic of the developing fringe. While working in the Fairview and other areas of original settlement, the investigators met a number of the homesteaders from Hines Creek, Clear Hills,

and Battle River working on the farms. Here they obtained their living and accumulated a "grub-stake" with which to maintain themselves when they returned to their homesteads for the annual six months' domicile there. Often these men were active participants in the life of the older communities.

The regional averages of the sources of cash receipts are as follows: outside sources account for 51 per cent. (\$324) of the total cash receipts in the fringe, 21 per cent. (\$513) in the transitional area, and only 14 per cent. (\$360) in the well-settled area. These figures show that a greater and greater dependence is placed upon the farm for income as the area increases in age (see Table XXX and Appendix, Table XII).

TABLE XXX—SOURCES OF CASH RECEIPTS NOT DERIVED FROM THE FARM ENTERPRISE (313 Peace River Farms)

SOURCES	WELL-SETTLED		TRANSITIONAL		FRINGE		WHOLE AREA	
	Dollars	Per cent.	Dollars	Per cent.	Dollars	Per cent.	Dollars	Per cent.
Outside labour.....	58	16	104	20	210	65	98	26
Non-labour.....	84	23	57	11	48	15	72	19
Custom work.....	219	61	352	69	67	20	208	55
All sources outside farm	361	100	513	100	325	100	378	100
No. of Farmers.....	194		52		67		313	

Of the total receipts from outside sources, the fringe gains its largest proportion from outside labour (65 per cent.) while the other two areas receive the largest proportions from custom work (61 per cent. in the well-settled areas and 69 per cent. in Zone II). Many more of the fringe farmers receive wages from outside labour than in the older areas (see Table IX, Appendix). This is quite typical of the areas concerned. The fringe settler, requiring outside means of support for present maintenance and for development of his farm, has only his own labour with which to trade, while the farmers of the older areas have a certain amount of capital equipment with which to gain income by threshing or breaking for their neighbours. The fringe settlers are forced to look outside their immediate community for jobs upon which to work during the busy seasons, and consequently must neglect

that community and the property which they own in it. As a consequence their interests are so divided between two communities that they have much less time for developing their homesteads, and for participation in the life of the fringe. In the older areas, outside income may be sought in one's own community. Custom work is usually done for immediate neighbours with little or no neglect of one's own property and local interests.

Cash receipts do not come, however, only from the farm enterprise or from outside employment. Many of the farmers during the year of the survey sold off a portion of their capital equipment,



FIG. 61—Two crops.

reduced their bank balances, or assumed obligations at the general store for goods which were consumed during the year, and were thus considered as cash expenditure items. Table XII, Appendix, presents the averages and percentages of sources of revenue: total cash receipts, reduction of inventory and investments, and operating debts, for the three zones of settlement and for the whole area. In the well-settled areas, as might be expected, the cash receipts from the farm and other sources come within a small amount (3 per cent.) of covering the total cash expenditure (total of all sources for expenditure).⁵ In the fringe the deficit is

⁵ The difference between this total of all sources for expenditure and the total cash expenditure on page 119 (Table XXXII), is due to incompleteness of the estimates of the farmers from whom the records were taken. This is, in other words, the "unexplained difference". The amount is insignificant when averaged for the sample and does not detract from the validity of the data.

14 per cent, 5 per cent. from operating debts and 9 per cent. through the reduction of inventories on the farm.

This survey of the land utilization and agricultural development of the Peace River pioneer area has been presented to show the means of living of these farmers. Successive changes have been noted throughout the various phases of agriculture: number and size of farms, tenure of operators, improved acreages, utilization of improved acreages, values of farm property, indebtedness, initial capital and net worth, and, finally, the sources of cash receipts with some reference to farm operating expenditures. The way is now prepared for an analysis of the modes of living of these same farmers; as indicated by their expenditure practices.

CHAPTER VI

FARM FAMILY EXPENDITURES FOR THIS REGION IN COMPARISON WITH OLDER REGIONS

IN studying "modes of living" we employ the data usually encountered in discussions of "levels of living" and "costs of living". Expenditures are the centre of attention in this chapter because they are, with limitations, indicative of the farmer's scale of economic and social values. They are the money measure of his ways of living. Attention is confined strictly to the ways in which Peace River farmers spend the incomes they have received or hope to receive; for there are those who in prosperous times discount the future rather heavily. However, the great majority of settlers are willing to struggle for years with few comforts in the interest of what they conceive to be future security. They strive to add to their holdings and to increase the productivity of their land. Some day they hope to have leisure and to be surrounded by many comforts. This competition between immediate consumption and the promise of affluence in the future is felt in all rural areas but particularly by the fringe settler who sticks to his farm. He has in mind certain physical and social satisfactions which must be obtained shortly if he is not to drift to another occupation, or at least to another area. For this tiller of the soil is a human being, who is conscious of his social status in the community, both as to his earning power and as to his mode of expenditure. Hence the amounts he is willing to spend on these satisfactions vary according to his income, to social pressure, and to the emphasis he places on farm efficiency, education, social position, or savings. The amounts expended and the objects of expenditure vary, too, from district to district. A study of modes of expenditure can be used as a means of discovering the conditions which characterize the fringe as distinct from the older settlements.

The Peace River Country is a pioneer region. Taken as a whole it is newer, and its modes of living are less rigid than are those in the older districts of the Canadian and the United States West, even though these latter districts still have a vivid sense of their pioneering background. The Peace River manner of living would

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show even greater contrasts if it were set over against those still more distant areas of older settlement in Canada and the United States. Comparisons are, however, confined to the Great Plains Region. It is necessary to state at the outset that while expenditure necessarily bears a close relationship to income over a cycle of years, it is not closely correlated with the income of a single year. Expenditure is much more constant than the varying income of

TABLE XXXI—TOTAL CASH EXPENDITURES PER FAMILY IN CANADIAN AND UNITED STATES SAMPLE AREAS

AREA	YEAR	NO. OF FAMILIES	TOTAL CASH EXPENDITURE			
			AVERAGE (dollars)	MEDIAN (dollars)	MODAL GROUP (dollars)	RANGE (dollars)
Peace River*....	1930	313	2339	1985	500-999	120-10,780
Turtleford-Kinder-sley, Sask.*....	1930	378	2790	2267	1000-1499	480-15,463
Olds, Alberta*....	1931	124	2912	2400	1500-1999	669-11,912
Bow Island, Alta.*	1931	91	2303	2000	1500-1999	455-7,100
Minnesota**....	1926	334	2772	...	.....	.....
Minnesota†....	1927-8	226	3951	2819	1000-2999††	.....

* Unpublished figures obtained from data collected in these areas by the Canadian Pioneer Problems Committee.

** C. C. Zimmerman and J. D. Black, *Factors Affecting Farm Families in Minnesota* (University of Minn. Agricultural Experiment Station, Bulletin No. 246, 1928).

† C. C. Zimmerman, *Incomes and Expenditures of Minnesota Farm and City Families* (University of Minn., Agricultural Experiment Station, Bulletin No. 255, 1927-28), p. 5.

†† According to Cash Receipts Distribution which is apparently parallel to the figures for Cash Expenditures.

regions which are still in the pioneer stage. For this reason our classifications are primarily in terms of expenditure rather than income, although the relationship is shown in Table XXXIII.

1. Total Cash Expenditure of Peace River Farmers

The survey sample contains fairly complete expenditure data for 313 farm households during the financial year ending April 30th, 1930. The average total cash expenditure for all items was \$2,339. While the largest number of farmers spent from \$500 to \$999, the range extends from \$120 to \$10,780. The sample is somewhat biased in the direction of lower expenditure groups by

the presence of a number of settlers who have been farming in the area from one to five years only. But it would be even lower if the sample included the full regional proportion of new settlers of this latter type. The fringe-like character of this region is in part shown by a comparison with areas of settlement of the Great Plains Region in Canada and the United States. Table XXXI indicates that the general average of \$2,339 for Peace River is lower than any of the others with the exception of the \$2,303 for Bow Island, which is somewhat of a fringe due to its climatic conditions, and which, furthermore, was surveyed one year later



FIG. 62—The home of one of the original settlers who worked while he waited for the highway and railway to reach the Rilla district.

than Peace River when market conditions were much less favourable. The average for the Minnesota study of 1927-28 is \$3,951. In the Peace River Country, the highest frequency falls within the group of \$500-\$999, while for all other areas included in this table, the modal group is above the \$1,000 mark.

2. Disbursement Trends for the Three Competing Classes of Expenditure

For purposes of comparison all items of cash expenditure may be distributed as follows: *farm operating expenses, family living, and cash investment.*¹ The farmer's investment represents the land he owns and the equipment he possesses, to each of which he hopes to make additions from year to year in order to assure a

¹ See Appendix A for a description of the items assigned to each class.

larger future income. In close competition with investment, which makes up his savings for the future, is the satisfaction of the annual needs of the family (or of the operator, if unmarried) for food, clothing, household operation and for institutional services. However, the cost of operating the farm plant, an expenditure which increases as a larger acreage is brought under cultivation, must be set aside before provision is made for either family living or additions made to investment. Interest in the latter urges a minimum of expenditure for immediate family needs.

TABLE XXXII.—TOTAL CASH EXPENDITURE PER FAMILY
(Relative Importance of Farm Expense, Family Living Expense and Cash Investment)

AREA	NO. OF FARMERS	CASH EXPENDITURE PER FAMILY					
		TOTAL		FARM EXPENSE		CASH INVESTMENT AND INTEREST	
		Dollars	Per cent.	Dollars	Per cent.	Dollars	Per cent.
Peace River*.....	313	2339	100	987	42	584	25
Kindersley, Sask.*	378	2790	100	1214	44	632	22
Olds, Alberta*.....	124	2912	100	1466	51	738	25
Bow Island, Alberta*	91	2304	100	1210	53	260	11
Minnesota**.....	226	3951	100	1857	47	848	21

* Canadian Pioneer Problems Committee survey data. Hitherto unpublished.

** C. C. Zimmerman, *Incomes and Expenditures of Minnesota Farm and City Families* (University of Minn. Agricultural Experiment Station, Bulletin No. 255, 1927-28).

† Includes one-half of the automobile operating expense to make figures comparable in all the studies.

The 313 Peace River farmers, whose average cash expenditure for all purposes was \$2,339, spent \$987 or 42 per cent. for the operation of the farm plant, \$768 or 33 per cent. for family living, and \$584 or 25 per cent. on cash investment and interest payments. In other areas the percentage for farm expense runs from 44 per cent. to 53 per cent. (see Table XXXII). It is quite obvious that farm operation costs should be relatively less in a region of recent settlement where farms have extensive unimproved acreages, or where livestock is limited. The investment demands take up this slack. In Peace River 25 per cent. is applied to investment items as compared with a range of from 11 per cent. to 22 per cent. for other areas, with the exception of Olds where 25 per cent. is

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spent for investment and interest. But while Olds spends half of this amount for interest payments and half for other investment items, Peace River spends but a small proportion of its 25 per cent. for interest payments.²

Cash family living is lower in Peace River than in any of the other areas, except Olds where, because it is a mixed farming district, a larger amount of family living may be supplied by the farm.

TABLE XXXIII—RELATIVE IMPORTANCE OF THREE MAIN ITEMS OF TOTAL CASH EXPENDITURE PER FAMILY FOR 313 PEACE RIVER FARM FAMILIES
(Classified According to Amounts of Expenditure)

TOTAL CASH EXPENDITURE GROUPS (dollars)	NUMBER OF FAMILIES	ADULT UNITS	TOTAL CASH EXPENDITURE		FARM EXPENSE		FAMILY LIVING		CASH INVESTMENT		CASH RECEIPTS	
			Dollars	Per cent.	Dollars	Per cent.	Dollars	Per cent.	Dollars	Per cent.	Dollars	
... 0-999...	76	2.08	741	100	228	31	366	49	147	20	560	
1000-1999.	78	2.38	1469	100	601	41	582	40	286	19	1319	
2000-2999	73	2.92	2443	100	989	40	895	37	559	23	2416	
3000-3999.	40	3.24	3465	100	1558	45	1086	31	821	24	3384	
4000-4999.	23	3.45	4431	100	1941	44	1268	29	1222	27	4029	
5000-5999.	14	2.72	5571	100	2511	45	1197	22	1863	33	5114	
6000 and over....	9	3.56	7164	100	3367	47	1407	20	2393	33	6978	
Whole area	313	2.67	2339	100	987	42	768	33	584	25	2186	

In Table XXXIII and Fig. 63 the trends of the competing classes of expenditure are shown in an ascending series of \$1,000 groups. The farm expense is seen to be the smaller item where the total expenditure is small. When the total cash expenditure is less than \$1,000, the farm expense is 31 per cent. of it but it reaches 47 per cent. when the total expenditure is over \$6,000. The farmers in the lowest group spend 49 per cent. in family living while those in the highest group spend only 20 per cent. Cash investment shows a continuous upward trend from the lowest to the highest groups, both absolutely and proportionately. This new region as a whole still places a premium on preparation for

² While a somewhat different method of accounting was used in the Minnesota study, it seems quite apparent that it supports, in the main, the above conclusion.

a larger future income. The main trend in these three types of expenditure is summed up by Zimmerman:

... an increase in cash receipts is associated with declining proportions spent for living, about the same proportions spent for automobiles, and an increasing amount spent for the farm itself and for investments. While all expenditures increased in actual amounts with increase in cash receipts, the primary competition was between those spent for the farm and the future and those spent for the present, in living.³

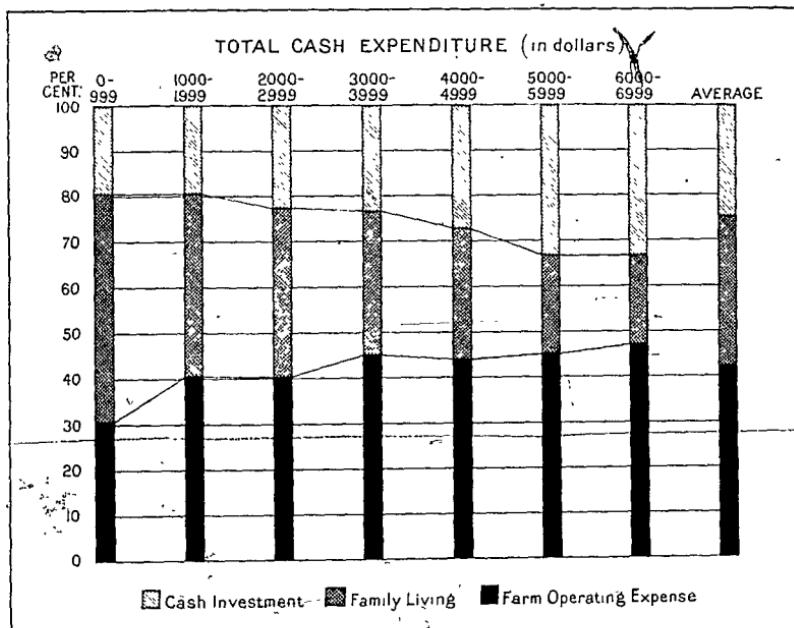


FIG. 63—Relative importance of three main items of total cash expenditure per family for 313 Peace River farm families (classified according to amounts of expenditure).

The main factors which determine relative as well as absolute amounts spent for the three main items are: the stage of development of the area, the accessibility of centres, the amount of cash and short term credit available, and the size of the family concerned.⁴

Disregarding farm expense, family living expense bears a ratio to investment for the families studied, of 57 to 43. Thus where the region is being developed and where incomes are low, the

³ C. C. Zimmerman, *op. cit.*

⁴ See following section, Cash Family Living Trends.

family living of the most frugal farmers takes a correspondingly greater proportion of the budget. However, family expenditure also increases absolutely with the development of the area and with increasing cash receipts, though it increases less rapidly than does investment.

3. Cash Family Living Trends

On many of the farms included in this study there is no homemaker; 96 out of the 313 households or 31 per cent. may be termed

TABLE XXXIV—AVERAGE CASH FAMILY LIVING EXPENSES PER ADULT UNIT
(Classified According to Total Amounts and Objects of Expenditure)
PEACE RIVER, 1930

TOTAL CASH FAMILY LIVING EXPENSES (dollars)	NO. OF FAMILIES	AVERAGE NO. OF ADULT UNITS	TOTAL CASH FAMILY LIVING PER ADULT UNIT (dollars)	FOOD (dollars)	CLOTH- ING (dollars)	AUTO (dollars)	HOUSE OPERA- TION AND EQUIP- MENT (dollars)	AD- VANCE- MENT GOODS (dollars)	HEALTH (dollars)
0 - 249...	29	1.28	140	85	26	0	11	16	2
250 - 499...	76	2.02	186	107	34	4	7	26	8
500 - 749...	80	2.68	238	123	45	6	16	38	10
750 - 999...	48	2.90	302	132	51	18	31	55	15
1000 - 1249...	31	3.60	307	136	62	12	30	48	19
1250 - 1499...	23	3.89	343	136	58	17	45	58	29
1500 - 1749...	13	3.83	453	161	76	14	30	123	49
1750 - 1999...	8	3.84	490	146	81	13	66	127	57
2000 and over...	5	3.18	724	186	81	17	118	262	60
All groups....	313	2.67	288	129	51	11	25	54	18

“bachelor” households. The difficulty of comparing households made up of a single male with family households is met, at least partially, by reducing each family to “adult units”.⁵ These 313 households include 189 families with children, 28 without children and 96 without homemaker or children. The average number of children for families having children is 3.6 and the average for the 313 households is 2.2. Forty-five per cent. of the children are from 1 to 8 years of age, 29 per cent. from 9 to 16, and 26 per cent. are

⁵ This was developed by means of the clothing expenditures, which were itemized for each member of the family; the decision was made to consider two children under 17 yrs. equal to one adult. While this device is somewhat arbitrary it seemed to be the most practicable way out of the difficulty.

over 16 years of age. The average total cash expenditure for all purposes is \$2,339 for the 313 households. Of this total the expenditure average for *family living* is \$768.

The average cash family living expenditures per adult unit are disbursed as shown in Table XXXIV (see Table XIII, Appendix).

Table XXXIV gives family expenditures in terms of the adult unit. The average living expenditure per adult unit for the area

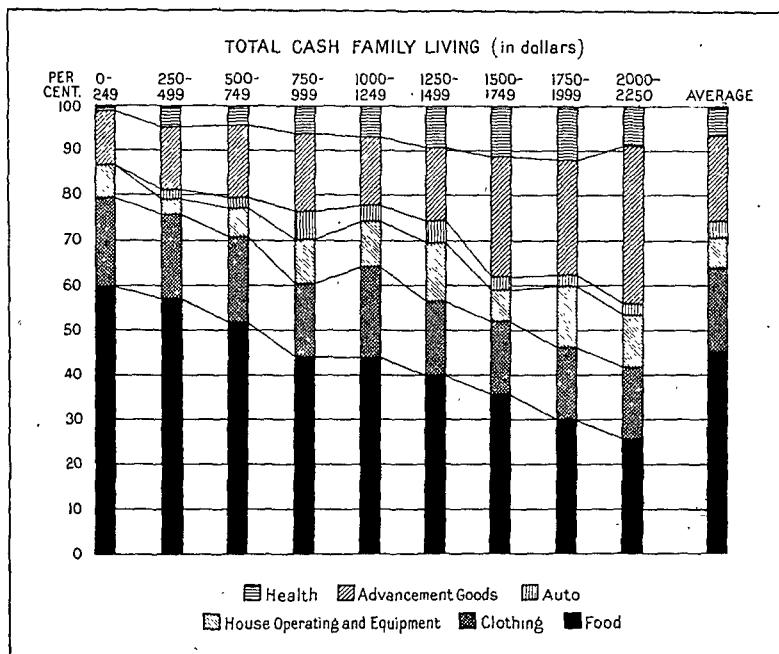


FIG. 64—Relative importance of six main items of cash family living expenses of 313 Peace River farm families (classified according to amounts of cash family living expenditure).

is \$288. Of this amount \$129 goes for food, \$51 for clothing, \$11 for the automobile, \$25 for household operation and equipment, \$54 for advancement goods, and \$18 for health services. The total cash family expenditure increases 5.2 times from the lowest to the highest groups; food increases 2.2 times, household operation and equipment 10.6, automobile 4.3, clothing 3.1, advancement goods 16.3, and health services 30.1 times.

The proportionate amounts spent for the various items advance

⁶ This is 4.3 times the expenditure in the second group as there is no automobile expense in the lowest group.

or decline in relation to the increases in the total family budget. Table XXXV (see Fig. 64) makes clear the fact that the percentages for food decline considerably, clothing shows little change, household operation and equipment shows some increase, the automobile expense rises and then falls, while the percentages for advancement goods and health services show a marked increase.⁷ These trends seem to indicate that those farm families who have

TABLE XXXV—CASH FAMILY LIVING EXPENSES OF 313 PEACE RIVER HOUSEHOLDS* (Relative Importance of Various Classes of Expenditure)

CASH FAMILY LIVING GROUPS (dollars)	NO. OF FAMILIES	AVERAGE NO. OF ADULT UNITS	AVERAGE CASH FAMILY LIVING PER ADULT UNIT (dollars)	FOOD (per cent.)	HOUSE OPERATION AND EQUIPMENT (per cent.)	AUTO (per cent.)	CLOTHING (per cent.)	ADVANCEMENT GOODS (per cent.)	HEALTH (per cent.)
0-249..	29	1.28	140	61	8	0	19	11	1
250-449..	76	2.02	186	57	4	2	19	14	4
500-749..	80	2.68	238	52	7	2	19	16	4
750-999..	48	2.90	302	44	10	6	17	18	5
1000-1249..	31	3.60	307	44	10	4	20	16	6
1250-1499..	23	3.89	343	40	13	5	17	17	8
1500-1749..	13	3.83	453	36	6	3	17	27	11
1750-1999..	8	3.84	490	30	13	3	16	26	12
2000 and over....	5	3.18	724	26	11	2	16	36	9
TOTAL....	313	2.67	288	45	9	3	18	19	6

* See Table XIII, Appendix, for average distribution per family.

limited means are forced to spend proportionately larger amounts for food and clothing, while sacrifices are made in regard to the remaining items. Since fringe regions have a greater proportion of low-income groups, very real sacrifices have to be made in many significant items in their annual budgets.

In comparison with certain other areas (see Table XXXVI) it may be seen that total cash family living does not vary greatly for the Canadian areas considered, but it is somewhat higher for

⁷ C. C. Zimmerman, *op. cit.*, p. 13. This study shows a similar trend for advancement goods, but health expenditures decline from 5.6 per cent. to 1.8 per cent.

the areas mentioned in the United States. On the less developed Peace River farms a larger proportion is spent for food than in the other areas. This may be due in part to higher food prices, and in part to the fact that the Peace families are concentrated at a lower income level. Not many of the Peace River farmers have as yet built substantial houses, and in consequence their equipment and upkeep costs are correspondingly less than in areas long settled. Fuel, too, is plentiful in the north country, and it is almost entirely

TABLE XXXVI—COMPARISON OF FAMILY LIVING EXPENDITURES IN SAMPLE AREAS OF UNITED STATES AND CANADA
(Relative Importance of Various Classes of Expenditure)

YEAR	AREA	NO. OF FAMILIES	TOTAL CASH FAMILY LIVING (per family) (dollars)	FOOD (percent.)	CLOTHING (per cent.)	HOUSEHOLD OPERATION (per cent.)	AUTO (per cent.)	ADVANCEMENT GOODS (per cent.)	HEALTH (per cent.)
1930	Peace River	313	768	45	18	9	3	19	6
1931	Olds, Alta.*	124	708	41	18	10	6	6	19
1931	Bow Island, Alta.*	91	834	35	16	14	7	9	19
1931	Davidson, Sask.*	134	729	33	15	22	4	9	17
1927-8	Minnesota**	226	1246†	27	18	20	10	16	9

* Survey data of the Canadian Pioneer Problems Committee.

** C. C. Zimmerman, *op. cit.*

† One-half of the auto expense added to total given in Table V, *Bulletin No. 255*.

supplied by the farm in the form of wood. From the data available, it is not easy to explain why a new region like the Peace River Country has such a relatively large expenditure for advancement goods. Of course these are twentieth-century settlers, migrants in the majority of cases from rural regions where standards are relatively high. It may be surmised that they do not sacrifice readily educational and other services, even though these may cost more in a region of scanty population.

4. Non-cash Contributions from the Farm

Family living in rural areas is not dependent upon cash outlay alone. The farm contributes food, fuel, and housing facilities⁸.

⁸ Current retail prices in the country districts were used to determine food and fuel prices. Ten per cent. of the value of the house was assigned as rent.

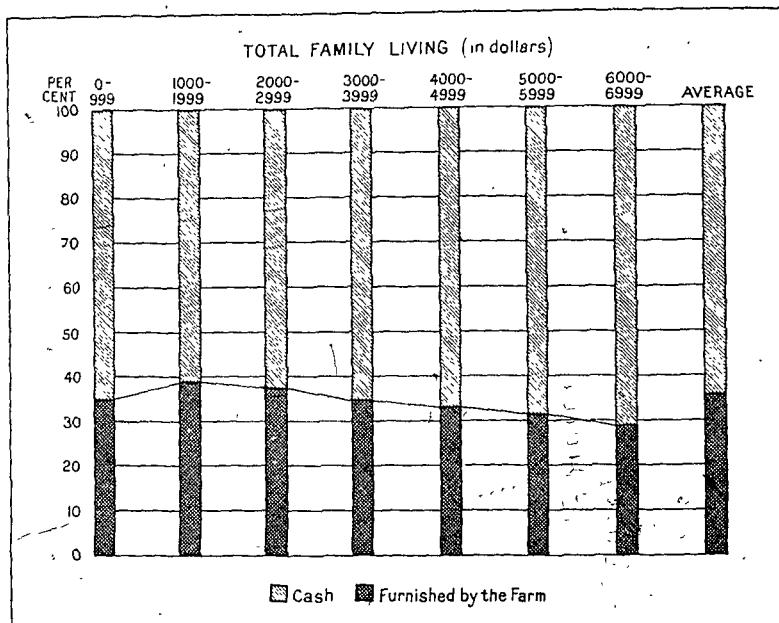


FIG. 65—Relative importance of cash expenditures and farm contributions in the total family living expenses of 313 Peace River farm families.

TABLE XXXVII—TOTAL FAMILY LIVING EXPENSES, PEACE RIVER AREA
(Relative Importance of Cash Living Expenses and Farm Contributions)

TOTAL CASH EXPENDITURES (dollars)	NO. OF FAMILIES	AVERAGE NO. OF ADULT UNITS	TOTAL FAMILY LIVING PER ADULT UNIT		CASH LIVING EXPENSES PER ADULT UNIT		FURNISHED BY FARM PER ADULT UNIT	
			Dollars	Percent.	Dollars	Percent.	Dollars	Percent.
0-999 ...	76	2.08	270	100	176	65	94	35
1000-1999...	78	2.38	401	100	245	61	156	39
2000-2999...	73	2.92	489	100	307	63	182	37
3000-3999...	40	3.24	512	100	335	66	177	34
4000-4999...	23	3.45	545	100	368	67	177	33
5000-5999...	14	2.72	640	100	440	69	200	31
6000 and over	9	3.56	553	100	394	71	159	29
Whole area...	313	2.67	446	100	288	65	158	35

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TABLE XXXVIII—TOTAL FAMILY LIVING EXPENSES PER HOUSEHOLD IN
SAMPLE AREAS OF WESTERN CANADA*
(Relative Importance of Cash Living Expenses and Farm Contribution)

AREA	NUMBER OF FAMILIES	TOTAL FAMILY LIVING (dollars)	CASH FAMILY LIVING (dollars)	FARM CONTRIBUTIONS (dollars)	CASH FAMILY LIVING (per cent.)	FARM CONTRIBUTIONS (per cent.)
Peace River, 1929-1930.....	313	1191	768	423	65	35
Olds, Alberta, 1930-1931.....	124	1023	708	315	69	31
Medicine Hat, Al- berta, 1930-1931.	160	987	670	317	70	30
Maple Creek, Sask. 1930-1931.....	59	925	635	290	69	31
Kindersley, Sask., 1929-1930.....	204	1405	1005	400	72	28

* Surveys made by Canadian Pioneer Problems Committee.

which form an important cash outlay for village, town, and city families. While it is difficult to express these items in cash equivalents the attempt has been made so to state them. Thirty-five per cent. of the family living of the 313 households was supplied by the farm (see Table XXXVII and Fig. 65). The amount contributed is relatively somewhat smaller in the high expenditure groups where the cash resources are much greater.

According to Table XXXVIII the Peace River farmers obtain a slightly larger proportionate amount of their living from the farm than do the farmers in the other areas included in this comparison. However, the Peace River survey was made before the sharp drop (1930-31) in the prices of milk, eggs, meat, butter, and other farm products, which affected the information obtained the following year in Olds, Medicine Hat, and Maple Creek.

CHAPTER VII, FARM FAMILY EXPENDITURES IN THE SUCCESSIVE ZONES OF SETTLEMENT IN THIS REGION

IN the previous chapter, the main types of expenditure for the Peace River Country as a whole were presented, and certain comparisons were made with expenditures in other regions which have reached a more advanced stage in their development. From this point forward the nature of the fringe will be portrayed by means of the internal evidence within the Peace River area itself.



FIG. 66—Chickens on the "board walk" near Berwyn.

FIG. 67—Saskatoons (native berries) near one of the lakes which bear their name. Wild fruit is used in large quantities.

The fringe will be defined by comparing its modes of living with those in the older Peace River districts. In a sense, this is the central theme of this volume.

In Chapter V, farming practices and agricultural productivity were related to three typical zones:¹ Zone I includes the first settled districts through which the railway and the main highway pass; Zone II represents the transitional area, remote from the railroad but near the main highway; Zone III is typical of the newly-settled fringe districts remote from the railway and the main highway. The problem of distance, time, and ease of transportation made it practicable to include in the whole sample a

¹ See p. 97.

much larger proportion of farmers in Zone I than in Zones II or III. As a result, income and expenditure averages are represented to be higher than they actually are for the region as a whole. However, the samples for Zones II and III are sufficiently large to give a representative picture of actual conditions in these two zones in comparison with each other and with Zone I.

Certain characteristics of the fringe are made clear by the differences which emerge in the expenditure practices of farm families as one reviews the records of the successive zones, from



FIG. 68—A "fringe" family.

the centre to the outer boundary of this region. From centre to fringe, family living increases proportionately, but in absolute terms it decreases sharply.

1. Comparison of Total Cash Expenditures

The total cash expenditure for all purposes per farm in the well-settled area (Zone I) is \$2,738, which is much more than double that of \$1,058 for the fringe (Zone III). The transitional belt (Zone II) has an average of \$233 less than that for Zone I. This monetary difference does not tell the whole story. For each dollar the farmer gets less consumption goods in the Rolla district than in Grande Prairie and Fairview, because in the first district there is a 55-mile truck haul to and from the railway shipping point.² This

² This was so until 6 months after this study was made, when the railroad was extended to this district.

means a higher price for articles purchased from outside the area. This applies with even greater force to the fringe, making the real level of living lower than is shown by the total expenditure index.

2. *Differences in Proportions Expended for the Three Main Classes of Expenditure*

The fringe farmers belong to the low income groups: they spend a relatively small proportion for farm operation, a much larger

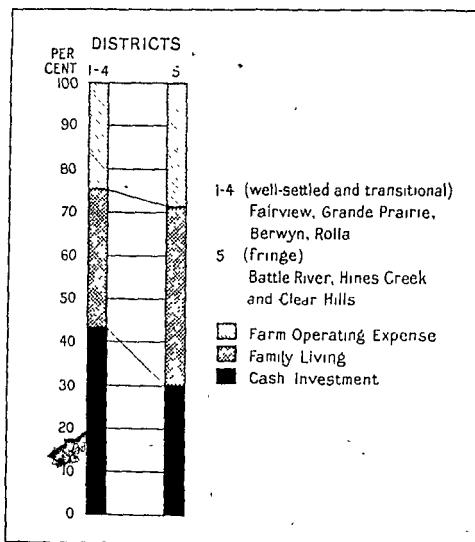


FIG. 69.—Relative importance of the three main items of total cash expenditure in well-settled and fringe districts of the Peace River Country.

share for family living, and a larger proportion for investment than do the other districts (see Table XXXIX and Fig. 69). The well-settled and transitional areas spend respectively 43 per cent. and 44 per cent. of their budget on farm operation, while the fringe, an area of recent settlement, 50 miles from the railway and main trunk highway, spends only 30 per cent. for this purpose. In the well-settled and transitional areas 33 per cent. and 30 per cent., respectively, are spent for family living, while this item comprises 41 per cent. on the fringe. The well-settled, transitional, and fringe districts spend 24 per cent., 26 per cent., and 29 per cent., respectively, for investment. In the fringe, future needs take the larger proportion of what can be spared from family living. The

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actual costs of operating a partially developed farm are correspondingly low. Long distance from the shipping point reduces the stimulus for immediate large-scale production, even where a large initial capital might make this possible. In the majority of cases the initial capital is limited, and it seems from observation that a gradual clearing and breaking of the farm land is more economic and feasible, because it allows the fullest use of the farm family's labour force between seasons. Ordinarily there is little choice in the matter, if the farmer settles on the cheaper land.

TABLE XXXIX—TOTAL CASH EXPENDITURE PER FAMILY
(Relative Importance of Farm Expense, Living Expense, and Cash Investment)

AREA	NO. OF FAMILIES	TOTAL CASH EXPENDITURE (dollars)	FARM EXPENSE (dollars)	FAMILY LIVING (dollars)	CASH INVESTMENT (dollars)	FARM EXPENSE (per cent.)	FAMILY LIVING (per cent.)	CASH INVESTMENT (per cent.)
Well-settled areas	194	2738	1187	890	661	43	33	24
Transitional	52	2505	1097	747	661	44	30	26
Fringe	67	1058	319	435	304	30	41	29
Whole area	313	2339	987	768	584	42	33	25

of the fringe. He must husband his capital during the period of inadequate transportation, endure a marginal standard of living, and prepare for extensive farm operation when shipping conditions are in his favour. Long haulage even over the mediocre "dirt" road 50-75 miles to and from Battle River farms reduces grain profits. In recent years cattle prices have been very uncertain, and it takes farmers with a moderate initial capital some years to acquire a herd of cattle and get the land ready to produce the feed for them. Those with sufficient capital are likely to farm under more tolerable conditions.

3. *A Comparison of Family Living Expenditures in the Three Typical Areas*³

Table XL (also Fig. 70) draws attention to the regional differences of disbursements of the six main items of cash family living. In proceeding from area I through II to III the proportion of the

³ In this instance Fairview is taken as the representative of the well-settled districts. The transitional and fringe districts are the same as above.

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family budget spent for food moves up from 38 per cent. to 50 per cent. to 56 per cent., clothing remains at 18 per cent., household operation drops from 13 per cent. to 8 per cent. to 3 per cent., the automobile from 4 per cent. to 3 per cent. to 1 per cent., advancement goods from 19 per cent. in both I and II to 15 per cent., health from 8 per cent. to 2 per cent. and up to 7 per cent. Lack of hospital facilities and distance from a doctor make

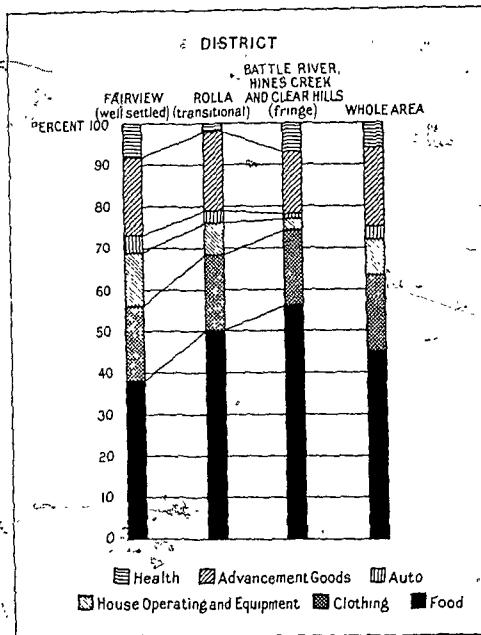


FIG. 70.—Relative importance of the six main items of cash family living expenses in well-settled, transitional, and fringe districts of the Peace River Country.

medical services on the fringe costly and uncertain, except at Battle River which has a doctor supported by the province. In the Rolla district (Zone II) the hospital is heavily subsidized from outside and doctors are near at hand. When the fringe is reached, owing to the log house and shack stage in home-building and equipment, there is a very great drop in household operation expenditure. Fuel, too, is supplied by the farm. Advancement goods hold a high relative position on the fringe.⁴ When attention is fixed upon the absolute amounts of cash spent for each of the main

⁴ See section 11.

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items, it is readily seen that there is a marked decrease in all expenditures for the successive zones from the well-settled district outward. The amount spent for health services in the transitional districts is an exception to this rule.

TABLE XL—CASH FAMILY LIVING EXPENSES PER FAMILY

DISTRICT	NO. OF FAMILIES	AVERAGE NO. ADULT UNITS	TOTAL CASH FAMILY LIVING (dollars)	FOOD (dollars)	HOUSEHOLD OPERATION AND EQUIPMENT (dollars)	AUTO (dollars)	CLOTHING (dollars)	ADVANCEMENT GOODS (dollars)	HEALTH (dollars)
Average Distribution per Family									
Zone I..... (Fairview)...	76	2.80	940	363	120	37	170	177	73
Zone II.....	52	2.58	747	372	56	24	134	143	18
Zone III.....	67	2.45	436	243	13	5	81	63	31
Whole area...	313*	2.67	768	344	68	28	137	143	48
Average Distribution per Family Adult Unit									
Zone I.....	76	....	336	130	43	13	61	63	26
Zone II.....	52	....	289	144	22	9	52	55	7
Zone III.....	67	....	178	99	5	2	33	26	13
Whole area...	313	....	288	129	25	11	51	54	18
Percentage Distribution									
Zone I.....	..	..	38	13	4	18	19	8	
Zone II.....	..	..	50	8	3	18	19	2	
Zone III.....	..	..	56	3	1	18	15	7	
Whole area.....	..	..	45	9	3	18	19	6	

* This total includes also the families in two districts, other than Fairview, in Zone I.

Not only do the fringe settlers belong to low income and expenditure groups, but they have only limited access to the institutional services available in the older settlements.

The smaller amounts expended for family living in the transitional and fringe districts is not explained by differences in the size of the family. The number of adult units per household is 2.80 for Fairview, 2.58 for Zone II, and 2.45 for Zone III.

The range is not great. Table XLI gives in detail the type of household and the number of children per family for all the families included in the well-settled, transitional, and fringe districts.

The percentage of bachelor households is greater in the transitional sample. The fringe sample shows a conjugal pattern very similar to that of the well-settled districts, according to the figures given in the table. The information for the fringe districts has, however, both a deliberate and an accidental bias. The investigators wished to obtain as much information as possible concerning larger family groups; in addition many bachelors were employed outside the settlement at the time of the survey. Actually the bachelor household is more important in the fringe than the above table would indicate.

TABLE XLI—NUMBER AND SIZE OF HOUSEHOLDS AND FAMILIES FOR PEACE RIVER DISTRICTS

DISTRICT	HOUSEHOLDS						No. of CHILDREN PER HOUSEHOLD	No. of CHILDREN PER FAMILY HAVING CHILDREN	
	TOTAL No.	WITH CHILDREN		OPERATOR AND HOME-MAKER ONLY		BACHELOR ONLY			
		No.	Per cent.	No.	Per cent.	No.	Per cent.		
Well-settled areas	194	121	62	19	10	54	28	2.2	
Transitional	52	22	42	6	12	24	46	1.5	
Fringe	67	46	69	3	4	18	27	2.5	
Whole area	313	189	60	28	9	96	31	2.2	

This problem of the bachelor is one which must not be overlooked at any point in this analysis. The single man was found to spend much larger proportions per adult unit on all six items of the family living budget. This was especially noticeable for the items of health, clothing, advancement, and food. Each of these was from 50 to 100 per cent. higher per adult unit for the single men than for the families.

4. Non-Cash Contributions from the Farm

The amounts contributed by the farm to supplement the cash expenditure for family living vary from zone to zone. By taking retail food prices for the area, and allowing 10 per cent. of the value of the house for rent, the attempt has been made to give a monetary measurement of all items—whether bought or contributed.

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by the farm—which enter into the farmer's level of living. Animal products make up 58 per cent. of the total farm contributions, rent 15 per cent., vegetable products 16 per cent., and fuel from the farm 7 per cent. These proportions do not vary greatly from area to area except in the case of rent, which is higher proportionately in the well-settled areas than in the transitional and fringe areas (see section 8 following).

Table XLII shows that there is little difference in the percentage of family living supplied by the farm in well-settled, transitional, and fringe districts. For the first two or three years the farm contributions are small. From then on they mount rapidly, but

TABLE XLII.—TOTAL FAMILY LIVING EXPENSES PER ADULT UNIT FOR PEACE RIVER DISTRICTS

(Relative Importance of Cash Expense and Farm Contributions)

NUMBER OF FAMILIES	AREA	NO. OF ADULT UNITS	TOTAL FAMILY LIVING EXPENSE		CASH		CONTRIBUTED	
			Dollars	Per cent.	Dollars	Per cent.	Dollars	Per cent.
194	Well-settled area.....	2.77	501	100	320	64	181	36
52	Transitional	2.58	443	100	289	65	154	35
.67	Fringe.....	2.45	268	100	178	66	90	34
313	Whole area	2.67	446	100	288	65	158	35

fall proportionately in the high income groups of the areas long-settled. Of course, the absolute amounts are much lower in the low-cash expenditure groups. In the group with the lowest cash expenditure there is the lowest amount for farm contributions, \$90 per adult unit. From this point it ascends to nearly \$200 per adult unit in the higher cash expenditure groups. It also changes from the well-settled areas to the fringe of the region; the amounts per adult unit furnished by the farm are \$181 for the well-settled districts, \$154 for the transitional area, and \$90 for the fringe. The region as a whole has not been settled for a period long enough to show any marked relative decrease in the percentage supplied by the farm, even in the older districts of settlement. The proportion of farm contributions averages about one-third of the total family living for the Peace River Country.



FIG. 71—A pioneer and his garden at Dawson Creek. Notice the water cans with wicks connecting them with the roots of the plants.

5. *Gardening Facilities as an Index of Fringe Living*

The contribution of vegetables to the larder of the Peace River households varies from zone to zone. The gardens of all but the newest settlers in all zones range from about $\frac{1}{4}$ of an acre to 4 acres, the largest number including from $\frac{1}{4}$ to $\frac{3}{4}$ acre. Among the newest settlers out near the periphery of the well-settled and transitional areas and scattered over the whole territory of the fringe regions, the garden is often a poor affair. Only the poorest



FIG. 72—Hacking out a garden and trying to make it grow on new breaking.

yields result from sowing cultivated plants on new breaking before the new soil has had at least a full year in which to rot the native vegetation. But once a small plot of land has been broken, garden seeds are the first to enter the new soil, in the large majority of cases. After the first year or two, when the cultivated acreage has increased to more than one acre, the size of the garden varies according to the wishes of the operator and his family, whether he is in the fringe or in the well-settled area. It does not seem to vary according to the amount of land available. In the newly-opened fringe, gardens are often speculative ventures. In Hines



FIG. 73—After a killing. Moose are plentiful in the new areas.

Creek, for instance, the investigators found the tops of the potatoes blackened on July 1. This was said to be a regular occurrence. In the older areas where the heavy bush has been cleared and the frost hazard has been lessened, the drought problem arises. The effect of this latter factor varies considerably from year to year.

Generally speaking, the gardens of Peace River farmers produced practically all the vegetables necessary except in the newest fringes. Here the settlers often neglected this part of the diet altogether, until their own gardens had reached the producing stage. In Hines Creek at the time of the survey, potatoes cost four cents per pound and other vegetables were proportionately dear. The small amount available naturally made these edibles almost a luxury. In their place was often substituted a large quantity of moosemeat, which was easily procurable in the pioneer fringe.

The garden is involved in the mode of living of the family in two ways. The first is through the economic contribution mentioned in the preceding section. The second is through the effect on the family division of labour and the home surroundings. Generally speaking, the homemaker is the one chiefly interested in the garden. In the first stages of fringe development she is interested in it from the point of view of the health of the family. It contributes to a balanced diet. Where there is no garden the amount of vegetables used on the table is small, and the health of children is to that extent jeopardized. Many of the children in Hines Creek whose chief items of diet were moosemeat and potatoes were noticeably anaemic. Such a condition is a stimulus to any mother to interest herself in a garden, especially when that mother has been accustomed to having plenty of vegetables in her previous abode. This consideration lessens as the standard of living rises in the older areas. However, the second stimulus is felt increasingly: the garden becomes a part of the home, and the housewife begins to take greater pride in the home surroundings, which include the condition of the garden. She becomes increasingly conscious of the position of herself and of her family in the community.

It is at this stage that the flower gardens become more prevalent. The social stimulus to beautifying the home surroundings and the increasing amount of time available in the older areas combine to make the flower garden more important. It is an index of a higher level of living. Flower gardens were noticeably absent in the fringe regions of the Peace country for just this reason. In the well-settled areas, especially where the household contained a homemaker, the flower garden was almost always present.

6. *The Shelter-belt in the Peace River*

Good gardens are not found in regions with poor protection from the heavy storms which are a normal feature of the Peace River climate. However, the parkland contains a large number of "bluffs" of willow and poplar, so that it is usually possible to find a spot close to the house in which at least the hardier vegetables can be given sufficient protection. As a consequence, the "wind-break" is usually a natural one, especially in the first few years after settlement. It is seldom that the natural bluffs form adequate protection for the homes from the strong, wintry blasts which

FAMILY EXPENDITURES—SUCCESSIVE ZONES 139



FIG. 74—A farm home with a corner of a splendid garden visible on the right.

FIG. 75—A Rolla garden.

FIG. 76—Near Grimshaw; one of the loveliest gardens in the Peace River Country.

sweep over the region from the north and west in the colder months. As the area continues to develop and more time is available, artificial windbreaks are set out.

The windbreak has a threefold use: garden protection, home protection, and beautification of the farmstead. Since all of these are more or less secondary considerations to the new fringe settler, who is thinking chiefly about the business of developing his farm to the state of highest possible production, the planting of the windbreak trees in the shelter-belt comes as a concomitant of settlement. Among the Peace River sample farmers it was found that the well-settled areas were the only ones in which any

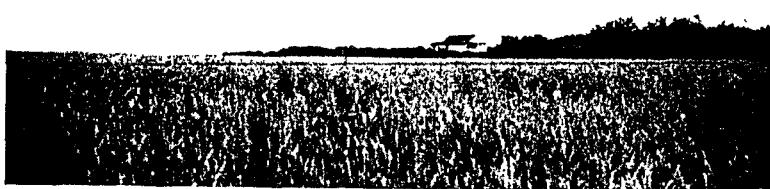


FIG. 77—Farm home with its shelter-belt.

attempt had been made to establish planned windbreaks. On 39 of the 194 farms, trees had been planted which eventually would form adequate protection against the elements. In Rolla only 3 out of 55 had artificial windbreaks, and in the fringe only 1 out of 75. None of these had reached the stage where they had sufficient height to be useful, though they relieved the bareness of the farmstead. This last is an important feature of the well-settled areas, where social position becomes an important force, and where the neatness and general appearance of planning around the home contributes considerably to the status of the family in the community.

7. Water Supply in the Peace River

Since adequate water facilities are not procurable without considerable effort and expense in any of the districts of the Peace River Country, the type of supply varies considerably in the various stages of settlement. The newer settlers, and even some

of the older ones, interested chiefly in the development of the economic possibilities of their farms, continue for a long period to use the poor quality surface water which is obtained by damming streams or constructing "scoop-outs", i.e., shallow scooped-out reservoirs for catching and retaining surface water. Beside these they dig shallow seepage wells for household purposes. If this water is not fit for drinking, it is necessary to store ice to be melted in summer for drinking water. The ice is taken from nearby lakes or rivers or from the scoop-outs. To obtain good water it is necessary to sink wells below the surface of the neighbouring rivers. In most cases the rivers run in deep valleys and, as a consequence,

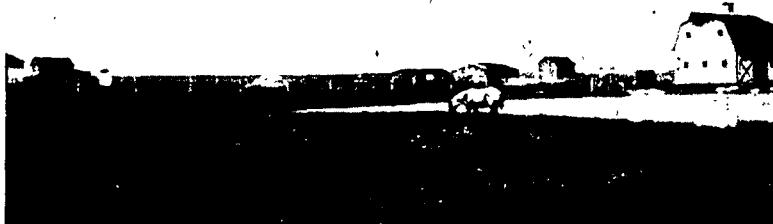


FIG. 78—Farmstead with its "scoop-out", near Grande Prairie.

the wells must be bored to great depths, often from 200 to 500 feet. The costs run as high as \$2,000 in some cases. The Hythe district is probably the only exception. Flowing wells are reported to be numerous in this area. Good water is procurable at a depth of from 30 to 300 feet. Since the surface water is usually sufficient for satisfying the needs of the livestock, and since the ice-water, while not being particularly satisfying or palatable, seems to lack nothing from the point of view of health in the family, it is natural that wells should not be bored until late in the development of an area. For that reason it is practicable only for the families with large capital in the older areas to have wells in order to improve the quality, and in some cases the quantity, of the water supply. A well is an index of a rising standard of living. According to the sample figures, 49 of the 194 farmers in the well-settled areas reported good wells. There were only 3 in Rolla, and 1 in the fringe. Insufficient quantity or poor quality of water has certain serious effects on the modes of living of the family. If the water supply

is not sufficient for the needs of livestock the year round, it often happens that the family must depend upon the butcher for their meat supply. Besides, the farmer is handicapped in that he cannot use livestock as a source of farm income. The water supply is thus seen to be an important factor in family living.

8. *Housing as an Index of the Settlement Situation*

The pioneer builds his house of the building materials which are cheapest and most accessible. The one- or two-room log house with its sod roof is typical of the farmer's first years in this north-

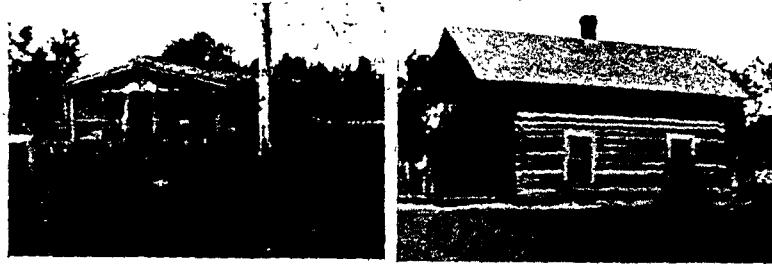


FIG. 79—A settler's home beyond the second Battle river.

FIG. 80—There are many homes of this type.

land. With the increase in the density of settlement the saw-mill has come to play a larger role in shaping the materials from which the settlers' homes are built. In these days the frame shack, a mere wooden shell with tar-paper in place of shingles, may be found to alternate with log cabins over the wide expanse of landscape. In due course the more substantial frame or brick house with its modern facilities replaces the log cabin. Yet these improved houses may long be delayed for the majority of farmers who live on the back roads.

Table XLIII summarizes the types of houses in the successive zones of settlement with which the study deals. It indicates that the value of houses in Zone I is about 4 times that of Zone III, \$1,063 to \$254. In the well-settled area the houses average 4.2 rooms, in the transitional district 3.4, and on the fringe 2.3 rooms. Twelve per cent., 22 per cent., and 43 per cent., respectively, of the houses in these successive zones have but 1 room, while the average number of persons per household for these same areas is 3.9, 3.7, and



FIG. 81—A home in the Rolla district.

3.4. The log house, quite prevalent throughout the area, and predominant in the outlying districts, is a fairly accurate index of a district's stage of development and its general level of living.

Closely related to housing facilities are household conveniences and comforts, and the means of communication with other people. No attempt will be made to analyse household conveniences in detail. The types of houses and their estimated monetary value are quite indicative of types of household conveniences to be found therein. These tend to be at a minimum for the log house and the frame shack. They increase very slowly until the modernized house is built. There are, scattered throughout the region, a number of modern houses, with fairly complete sanitary equipment, mechanical devices, and lighting facilities. But these are few in comparison with those whose conveniences and comforts are very limited. There is something elemental about the conditions under



FIG. 82—The big new house and its predecessor next to the left.

TABLE XLIII—HOUSING FACILITIES IN THE PEACE RIVER AREA

DISTRICT	NO. OF HOMES	AVERAGE VALUE (dollars)	AVERAGE NO. OF ROOMS	PER CENT. WITH		PER CENT. OF		
				1 Room	2 or more Rooms	Frame	Log	Log and Frame
Well-settled	202	1063	4.2	12	88	51	37	12
Transitional	54	635	3.4	22	78	41	49	10
Fringe.....	73	254	2.3	43	57	23	73	4
Whole area.	329	823	3.7	22	78	43	47	10

which household operation is carried on during the early years of settlement, and there are many for whom such a situation has a strong appeal.

9. Modern Devices in Relation to Communication

There are certain devices which help to break down the isolation of newly-settled areas, such as the telephone, the automobile, and the radio. The telephone and the radio bring the outside world to the home, and the automobile periodically takes the family away from the home and places its members temporarily under the stimulus of new social situations. Each of these devices, quite apart from its social utility, may function directly in the routine operation of the farm. According to Table XLIV, 17 per cent. of the farmers for the whole sample have a radio, 13 per cent. have a telephone, and 43 per cent. operate an automobile. Percentages having a radio for Zones I, II, and III are, in succession,

TABLE XLIV—NUMBER AND PERCENTAGE OF FAMILIES HAVING SPECIFIED CONVENiences AND SERVICES, PEACE RIVER AREA 1930

DISTRICT	NO. OF FAMILIES	RADIO		PIANO OR GRAMOPHONE OR BOTH		TELEPHONE		AUTO	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Well-settled	202	47	23	85	42	42	21	122	60
Transitional	55	4	7	16	29	..	..	18	23
Fringe.....	75	4	5	17	23	..	..	4	5
Whole area.	332	55	17	118	36	42	13	144	43



FIG. 83—A section of the Battle River highway two weeks after a heavy rain. These cars got through with difficulty.

23 per cent., 7 per cent., and 5 per cent.; for the automobile the successive percentages are 60 per cent., 23 per cent., and 5 per cent.; and for the telephone 21 per cent. for the well-settled districts while the transitional and fringe districts are entirely without the telephone. The telephone depends upon group organization and action in order to secure enough subscribers to warrant the extension of telephone lines into one of the newer districts. Such an advance in the social organization of a population, which is mobilized from a variety of backgrounds, requires time as well as an increased density of population. This accounts for the absence of the telephone in the outer zones of settlement. Similarly, the automobile has to wait until concerted efforts in a district



FIG. 84—The ferry at Dunvegan which makes possible automobile transportation through the area.

provide the roads, bridges, and ferries which make feasible this form of transportation. There may be individual farmers who have the capital for such devices, but they must wait until many of their neighbours are in a similar financial position and a like frame of mind. On the contrary, the radio, piano, and gramophone are not dependent upon community organization, although the social stimulus is an important factor in explaining their presence in the various homes. Even at that, the radio percentage is very small for the outer zones where other communicational devices are absent or negligible. Here the gramophone wheezes out some

TABLE XLV—TOTAL AND PERCENTAGES OF FAMILIES USING EACH TYPE OF PUBLICATION, PEACE RIVER AREA, 1930

AREA	No. of Families	PUBLICATIONS									
		DAILY		WEEKLY		AGRICULTURAL		RELIGIOUS		MAGAZINE	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Zone I ..	202	82	41	150	74	162	80	24	12	91	45
Zone II ..	55	26	47	43	78	38	69	1	2	21	38
Zone III ..	75	11	15	32	43	34	45	3	4	22	29
Whole area ...	332	119	36	225	68	234	70	28	8	134	40
										16	5

sort of consolation for a small section of the population. In all districts there is a small sprinkling of hardy troubadours who perform on the violin or mandolin.

10. Reading Practices

Reading is also a home activity, and the reading of newspapers and periodicals is an important, though a secondary means of keeping in touch with the march of human affairs outside the local community. The average number of periodicals per family varies considerably in successive zones of settlement in the Peace River Country. The number of periodicals is lowest where other means of communication with outside communities are least

adequate. In Zone I there are 4.5 periodicals per family, 3.8 in Zone II, and 1.9 in Zone III.

Table XLV presents the numbers and percentages of families in the three zones of settlement and the whole area who used six general classes of periodicals. In the whole area, daily newspapers were read and subscribed to, often intermittently, by slightly over one-third of the households, and weeklies by about two-thirds. It is in the well-settled and transitional areas where most of these families were found, especially those who were regular subscribers. Seventy per cent. of the families in the whole area read the monthly or semi-monthly agricultural papers and again it was Zone I and Zone II which had the most subscribers. It was only in the well-settled areas that religious papers were used to any significant extent. In the transitional and fringe regions where religious organizations such as the church and Sunday school are still in the mission stage, the number of church periodicals used was almost negligible. Popular magazines were subscribed to, either regularly or intermittently, by 40 per cent. of the whole sample. Again, the larger proportion was found in the older areas. Only 5 per cent. of the sample used foreign newspapers or publications. Rolla contributed the largest number of families to this total.

In total numbers of periodicals used, agricultural papers led the way with 38 per cent. Weekly newspapers had 27 per cent., story magazines 18 per cent., daily newspapers 12 per cent., religious publications 3 per cent., and foreign newspapers 2 per cent. The outlying districts are not dependent only upon reading matter for which they pay the current subscription rates. The more voracious readers buy cheap magazines by the bale at "hand-me-down" rates in the distant larger centres. One old-timer, who lives alone, is said to have two truckloads of such reading matter, which he refuses to lend. Having lived on more than one fringe he has become hardened to the irresponsible borrowers, who are numerous in new districts. But such quaint conservation of reading matter is quite exceptional. Many people bring in bundles of periodicals; others have reading matter sent them periodically by friends and relatives, some of whom live across the sea. Most of these share their books, papers, and magazines freely with their neighbours. The succeeding analysis of advancement goods has been partially anticipated in this discussion of reading matter because the cost of periodicals is included in educational costs.

II. Advancement Goods Expenditure

That portion of family living expenditure devoted to educational costs, expenditures for recreation, and general social participation has been designated as expenditure for advancement goods. These items come into sharp competition with investment expenditure. It is conceded by social appraisers that advancement expenditure is a very important index of the level of living in a given region, because such cultural objectives have gathered to themselves a superior status. In brief, they have become socially sacred.

Where the net expenditure is small, as in fringe districts, the proportion assigned to advancement is meagre, because the essential physiological needs of food, clothing, and shelter must first be supplied. The opportunities for advancement expenditure are limited because of the few local institutions, and because of the inadequacy of the outside subsidy used to supplement the support afforded institutions by the low-income groups. Moreover, those who seek educational advancement for their children beyond the elementary school grades must pay to send them to the high schools in the older districts. This expense has not yet become significant in the outer zones, since the children of fringe farmers belong very largely to the early age groups. In the fringe \$26 is spent per adult unit in advancement goods, \$55 in Rolla, and \$62 in Fairview (Table XLVI). Of course limited income is not the only factor which affects the expenditure on advancement goods. There are other factors such as the presence and stimulus of institutions and patterns of social action in the community.

A certain difference in the nature of the expenditure may throw further light on the amounts spent in the older, transitional, and fringe districts. Personal items, such as tobacco, trips to "the outside", and other antidotes to bachelor isolation, take up 73 per cent. of advancement expenditure for the fringe, while for Rolla and Fairview the proportions are 55 per cent. and 53 per cent. Rolla, in particular, and Fairview spend larger percentages for social organization. Its transitional position has led Rolla to spend, in this connection, a larger proportion for commercialized amusements. For such items expenditure on the fringe is inevitably low because of the inaccessibility of institutions and because of the low incomes.

Fairview spends 16 per cent. on education, which is proportionately and absolutely more than the other two areas spend for

this purpose. Rolla, owing to a more generous educational subsidy, spends proportionately less than the fringe for distinct educational advantages. The proportions are 8 per cent. for Rolla and 10 per cent. for the fringe. Church and charity expenditures are higher in the older settled districts. Religious interests are less effectively organized in the fringe, and outside financial aid for this purpose is quite common. Furthermore, the older district includes

TABLE XLVI—EXPENDITURES ON ADVANCEMENT GOODS PER ADULT UNIT FOR THREE PEACE RIVER DISTRICTS

(Relative Importance of Various Classes of Expenditures)

AREA	NO. OF FAMILIES	TOTAL ADVANCEMENT GOODS (dollars)	PERSONAL (dollars)	TRAVEL (dollars)	ORGANIZATIONS (dollars)	EDUCATION* (dollars)	CHURCH AND CHARITY (dollars)
Average Distribution							
Fairview.	76	62.03	14.52	18.65	12.30	9.83	6.73
Rolla....	52	55.49	27.19	3.32	17.78	4.60	2.60
Fringe...	67	25.77	11.88	6.99	3.27	2.60	1.03
Percentage Distribution							
Fairview.	76	100	23	30	20	16	11
Rolla....	52	100	49	6	32	8	5
Fringe...	67	100	46	27	13	10	4

* School taxes are not included here; the amounts paid per farm vary from \$8 to \$12 in the fringe areas to \$40 or \$50 in older settlements.

the homogeneous Roman Catholic group at Friedenthal, which raises the level of religious attendance and religious expenditure for that area. The community side of advancement goods, social institutions and community organization, will be analyzed in detail in the following chapters.

12. Investment Expenditure

Cash investment expenditure competes closely with family living costs and keeps the family's outlay for immediate consumption goods such as food, clothing, and the like at a frugal level. As far as food is concerned, the operator can make the farm contribute heavily after one or two years even if he has settled on unimproved land. He clothes himself simply, and often insufficiently with respect to health and comfort. This saving habit, as

we have seen, may be observed also in his expenditures for housing and household conveniences. In such matters he must scrimp if he would have something left for the purchase of the necessary farming equipment and eventually for more land. Such investment, when wisely made, leads to a higher income and larger family expenditure at some future date, when investment expenditure is not so pressing. This trend has already been shown in preceding tables, yet invest-

TABLE XLVII—INVESTMENT AND INTEREST EXPENDITURE IN SPECIFIED PEACE RIVER DISTRICTS
(Relative Importance of Objects of Expenditures)

	WELL-SETTLED	TRANSITIONAL	FRINGE	WHOLE AREA
Number of Farmers.....	194	52	67	313
	(per cent.)	(per cent.)	(per cent.)	(per cent.)
(a) <i>Reinvested in Farm</i>	74	82	91	78
New buildings.....	11	8	24	12
New equipment.....	39	44	37	40
Livestock.....	5	3	23	6
Mortgage and land.....	19	27	7	20
(b) <i>Outside Investments</i>	20	16	9	18
Life insurance.....	3	1	1	2
Stocks, bonds, and loans.....	2	4	1	2
Bank savings:.....	7	9	7	8
Miscellaneous (chiefly payment of debts)	8	2	..	6
(c) <i>Interest</i>	6	2	..	4
TOTAL.....	100	100	100	100

ment expenditure plays such a dominant role in new regions like the Peace River Country—and especially in its more recently settled districts—that frequent references to it are necessary throughout this volume.

Table XV, Appendix, and Table XLVII give the average amounts expended and the percentages, for the typical forms of investment in the three successive zones of settlement. It should be noted that the figures in the former do not correspond with the figures for cash investment in Tables XXXII and XXXIII. In

the latter, investment transfers, such as those from livestock to machinery, were shown in total but could not be traced for the individual items. It is obvious that when a farmer sells some of his capital equipment, he uses the money obtained thereby to pay bills of all kinds. This makes the itemizing of the transfer items impossible. Since, then, the transfers were summarized only, it was impossible to subtract them individually from the various investment items. Consequently, the figures are higher throughout than they would be if the transfers could be traced and subtracted. Yet they do indicate approximately the kinds of investment which are made by the Peace River farmers and the proportions assigned to each.

Table XLVII records that reinvestment in the farm is the most important item, 78 per cent. for the whole area, 74 per cent. for the well-settled area, 82 per cent. for the transition area, and 91 per cent. for the fringe. The largest single item in all areas is that of equipment,⁵ which is followed by land purchase in districts long settled. Livestock rather than more land seems to be the immediate requirement on the fringe. Other items such as loans, life insurance, and bank savings are much higher in the older areas. Interest becomes successively less important in passing from Zone I to Zone III. The bank account is not large, and it must be considered merely as a temporary cash reserve to be switched to other items of expenditure with great frequency. Investments outside the farm are deferred for many years, until improvements are made first on the farm. This building up of local capital is one of the important indices of a condition of settlement in contrast to un settlement.

In this analysis of modes of expenditure in the successive zones of the Peace River Country, the reader must bear in mind the successive stages in the development of the Peace River region as a whole, with attention fixed particularly upon the life-cycle of what is now described as the well-settled area. The fringe and transitional areas approximate more closely stages two and three in comparison with Zone I, which is just emerging from the fourth stage. In making this comparison certain qualifications must be made, because the older districts in their early days of settlement suffered far greater handicaps through inadequate transportation and communication than do the present transitional and fringe

⁵ The mechanization of agriculture had proceeded with great speed in the years preceding the survey, and had hardly come to a halt by 1930.

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districts of the region. Yet the comparison gives perspective to the regional analysis in this chapter.

The expenditure practices of settlers in the successive zones of settlement are important indices of the economic and social life to be found therein. But this analysis needs to be supplemented by a study of the economic and social structure within which these families exist. The centres, small and large, are not only indices of the level of regional productivity and family living, but within these centres are located the institutional services upon which the settler has come to depend. Without them his farm life would be scarcely tolerable or feasible. The fringe, too, just as surely, is defined by the presence or absence of particular elements of social organization. This is the community phase of farm life.

CHAPTER VIII

THE FOCAL POINTS IN THE SOCIAL AND ECONOMIC ORGANIZATION

IN the two preceding sections attention was focused upon the farm plant and the farm family. While frequent reference was made to the regional position of farm families, a systematic analysis of the social and economic organization of the region as a whole has not yet been made. Even a low level of existence and a minimum of social satisfactions require a larger unit than the single farmstead. Transportation facilities, commercial institutions, marketing organizations, schools, churches, and social services grow because farm families need them, help to develop them, and learn to share them. Eventually these organizations, through their common personnel, their central position, and their dependence on each other, become the integrated social and economic structure of the region. In the Peace River Country this structure, being in the process of establishment, appears fragmentary; this is true especially in the fringe districts where line-fences enclose almost the whole of existence.

The entry of certain social institutions and the earlier stages of their development were briefly described in the second chapter. The present-day distribution of institutional units in the successive zones from the well-settled centre to the outer boundaries of the region may now be presented. Institutional services, because they are utilized by widely distributed families, are of necessity centrally located, and the more favourably situated of these focal points have a concentration of services. Therefore the regional distribution of centres with their constellations of institutions requires a more detailed consideration than has been given previously in this volume.

In the rising tide of migration following in the wake of the penetration of the railway were to be found many persons whose objectives were not farming. Shop-keepers, insurance agents, salesmen of farm machinery, and those who sought new opportunities for carrying on the older professions were added to the growing population of the towns and villages. The population of the town of Peace River increased from 742 to 980 in the five-year



FIG. 85.—The Battle River highway across the muskegs.



FIG. 86—The main street in Notukewin.

period preceding 1921, and during the same period Grande Prairie trebled in size, reaching a total of 1,061. Spirit River and Clairmont by 1921 had populations of 210 and 130 respectively. During the period of population recession from 1921 to 1926 the number of village people increased. Railway extension during this period gave rise to the new centres of Berwyn, Brownvale, and Whitelaw to the north, and to Dimsdale and Wembley to the south of the Peace. These had populations which varied from 100 to 300. Later still came the important villages of Fairview, Beaverlodge, and Hythe.

This commercial expansion was due not only to the entry of individual traders, but also to the invasion of the branches of large



FIG. 87—Roma, a shipping point only, north of the Peace River.



FIG. 88—View of Hythe from the top of a grain elevator.

business corporations. Independent dealers continued to dominate the trade in general merchandise, hardware, meat, clothing, drugs, and beer, but chain organizations controlled the sale of lumber, farm implements, automobiles, and motor fuel. Banks, grain elevator companies, livestock, and wheat pools have established units here as elsewhere in the Canadian West.

In spite of this tendency toward standardization of economic services, the rate of growth varied for different trade centres. Distances between them, their location with respect to fertile soil areas, business methods, and the resourcefulness of local leaders were among the influences at work. The increase (especially



FIG. 89—Saturday evening at Grande Prairie.

since 1926) in the rural population, the increase in agricultural production, the improvement of roads, and the more general use of automobiles, all added to the growth of various types of trade centres. The extension of the means of transportation broke up the monopoly of the cross-roads centre and brought it into competition with villages and other cross-roads centres. As a result, a trend toward a division of labour among them is evident. Some centres have settled back as "service stations" for small local districts, while others have developed specialized facilities and a variety of goods which attract customers within a radius of fifty to one hundred miles.

These commercial centres may be put into four classes—(1) There are the numerous cross-roads centres with or without one (or more) associated non-pecuniary service, such as Varenna, Red Star, North Star, Golden Meadow, Bezanson, Glen Leslie,

Progress, Notikewin, Valhalla, Dixonville, Rio Grande, Halcourt, and a host of others. (2) Then come the elementary centres, such as Brownvale, Whitelaw and Bluesky, north of the Peace, Prestville, Roycroft, Webster, Wanham, and Clairmont south of the Peace, and Rolla and Dawson Creek in the Peace River Block. In 1930 these hamlets had from 50 to 150 inhabitants, from 12 to 34 business units,¹ and \$100,000 to \$200,000 business turnover. (3) The larger elementary centres are Fairview, Berwyn, and Grimshaw north of the Peace, and Spirit River, Sexsmith, Wembley, Beaverlodge, Hythe, and Pouce Coupé south of the Peace. These villages have from 100 to 300 inhabitants, 26 to 52 business units,



FIG. 90—The scattered buildings in Pouce Coupé are typical of Peace River towns.

and a retail business turnover of \$200,000 to \$500,000. Fairview and Hythe,—“end of steel” towns at the time of the survey—were exceptions with boom figures of \$600,000 and \$900,000 respectively. (4) Finally, there are the independent centres²—Grande Prairie and Peace River. The former, the largest town in the Peace River Country and with urban ambitions, had a population of 1,464³ in 1931, 82 business units, and a retail business

¹ The term “business unit” here means a line of business, rather than a separate establishment. Two or more interests are often combined, especially in the smaller centres. Examples are: hardware, and agencies for implements and automobiles; garage and automobile salesrooms; real estate and fire insurance. Owing to this overlapping, the same establishments were counted several times, which inflates the number of business units for the various centres.

² This classification follows C. C. Zimmerman, *Farm Trade Centres in Minnesota, 1905-1920* (University of Minnesota Agricultural Experiment Station Bulletin No. 269), p. 10.

Trade centres are termed *independent* if they have a bank, newspaper, railway station, postal, telegraph and express services. A centre lacking one or more of these facilities falls within one of the preceding elementary classes. Fairview fulfils the formal requirements, but it fits more appropriately into the group of larger elementary centres.

³ *Census of Canada, 1931* (Ottawa: Dominion Bureau of Statistics, 1932).

turnover exceeding \$2,000,000. The population of Peace River was 864, and its business turnover was estimated to be slightly more than half that of Grande Prairie. With the exception of Pouce Coupé, Rolla, and Dawson Creek, which are in the transitional zone, the centres in classes 2, 3 and 4 are located on the railway in the well-settled area of Zone I. The number of smaller cross-roads centres has continued undiminished in the older districts. This latter type is also the only one found within the



FIG. 91—The evolution of a cross-roads store. Read from lower left, up, and across to right.

fringe districts, and long distances have to be covered in order to obtain any but the most elementary needs.

About four miles from a little country store lives a fringe family who are doing tolerably well, considering their obstacles. Not far away a new school has just been built, which is the only accessible social organization. Twenty-five miles away is the hamlet of Dawson Creek, and the Pouce Coupé hospital is 30 miles distant. As the trails are difficult, each of these remote centres is visited but once a year. These limited contacts are the lot of many fringe families.⁴

A brief description of one centre of each type will indicate what units of economic and social organization are likely to be found therein. (1) The cross-roads centre, which is often only a store,⁵ is an instance of rural non-centralization. Schools, churches, halls, post-offices, and cross-roads stores are often located

⁴ Field notes.

⁵ The cross-roads store supplies standardized goods such as groceries, hardware, work clothes, etc.

miles from each other, though several of these institutions may be found together. Naturally, in a new region where roads are in the early stages of improvement, where the use of the automobile is limited, and where winter snows reduce the radius of travel, the demand for the open-country centre remains constant. Even country centres 4 to 6 miles from the railway, hamlets, and villages are well patronized. Two general merchants of Fairview operate general stores at separate points about 6 miles distant in the open country. These stores serve but small areas, and, no doubt, the increased use of the automobile will require them to specialize more sharply in that merchandise which the farmer calls for often. Larger centres have arisen with the advent of the railway and modern highway, but these open-country centres



FIG. 92—The Dawson Creek co-operative store.



FIG. 93—The cross-roads store in a fringe district.

with one or more units show no sign of vanishing, even at the approach of the most rapid means of transportation.

(2) The hamlet of Brownvale is a representative small elementary centre. It is situated on the railway and on the main highway midway between Berwyn and Whitelaw. It had a population of 50 in 1930, a total of 15 business units, and a retail turnover of approximately \$100,000. It had 5 grain elevators, 2 general stores, 2 implement agencies, a hardware and furniture store, a gasoline and oil station, a livery and feed barn, a blacksmith shop, a bakery, and a small hotel. Brownvale's dependence on outside points is indicated by the fact that all its commercial units, with the exception of the hardware and furniture store, are branches of chain organizations whose headquarters are in Peace River, Grande Prairie, or in more distant "outside" centres. While it has a railway siding and loading platform, it lacks a station and, therefore, also express and telegraph services. Its banker and his assistant spend one-half of the week in Brownvale and the other half in Whitelaw. Berwyn, eight miles distant, is the nearest point for medical,



FIG. 94—A mode of long-distance winter travel.

FIG. 95—On the way to the cross-roads store in one of the new districts.

FIG. 96—Informal social contacts at a fringe cross-roads store and post office.

hospital, and legal services, high school facilities, agricultural and school fairs, sports celebrations, weekly movies, and dances. Brownvale has a one-room elementary school, a Presbyterian church with its Ladies' Aid, an Orange Lodge, a card club, a baseball team, and a girls' basketball team. The functions of this unincorporated hamlet are those of a shipping-point and service station for basic commodities; it has few more organizations than are found in open-country communities.

(3) Compared with Brownvale, Wembley, representing the next larger class of centres, shows far more complexity. It is an incorporated village with a population of 200, and is situated 15 miles



FIG. 97—Main street in Whitlaw, representative of the smaller elementary centres in the Peace River area. To the left is the homesteader who sold the townsite to the railway.

west of Grande Prairie. It has 39 business units, with an annual turnover of \$340,000. Wembley is on the main highway and has railway, telegraph, express, postal, and banking facilities. Its buying and selling services include 4 grain elevators, 5 farm implement agencies, 3 gasoline and oil stations, 2 garages, 2 livery and feed barns, 2 blacksmith shops, a harness and repair shop, a lumber yard, a creamery, 3 general stores, and 2 hardware businesses. In the list of personal services are a barber shop, a drug store, 2 clothing stores, an hotel, a restaurant, and a laundry. The professions are represented by a doctor, 2 lawyers, and a resident minister. There is a community hall which seats 250 persons. Civic improvements include gravelled streets, board sidewalks, and 7 public wells. In the list of sanitary provisions are 3 private

cesspools, while a drayman is the general village scavenger. The electric light system is an extension from that of Grande Prairie.

Wembley, in common with other villages, is in many ways subsidiary to Grande Prairie, on which it depends for wholesale supplies; a weekly newspaper, the land office, provincial police, and a number of other governmental services including those of the district and supreme courts. Wembley also obtains its hospital and dental services in Grande Prairie. There, too, is to be found a far wider range of consumer's goods, especially clothes, millinery, furniture, shoes, jewellery, and automobiles.

Wembley's dependence extends also to many of its social and



FIG. 98—Main street, Berwyn, representative of the larger elementary centres. Note the railway station at the end of the street.

recreational activities. Grande Prairie until recently was its nearest high school centre. While Wembley has a resident minister of the United Church whose local congregation is particularly active, it is a preaching point for the Anglican minister, who resides in Grande Prairie. Among the extra-curricular school activities are baseball, basketball, and those of the school choir which participates in the musical festivals held in larger centres, such as Grande Prairie. Like all villages and hamlets Wembley has a Board of Trade which advertises its potentialities. There are Masonic and Orange Lodges, the Women's Institute, an Agricultural Society, and an Athletic Organization with subsidiary clubs for baseball, basketball, soccer, tennis, hockey, and curling. Most of these athletic clubs belong to sports leagues which centre in Grande Prairie. While the larger town sets the standard for



FIG. 99—Water for the town of Fairview is distributed by the water wagon.

annual sports celebrations, it is a matter of pride to the people of Wembley that their agricultural fair is rated higher than that of Grande Prairie.

It is interesting to note that, while village people are the leaders in most of the organizations, the rural people participate in them, too. The Board of Trade and the Women's Institute draw about one-third of their members from adjacent rural districts. There are country people in curling, baseball, and especially in agricultural organizations. The rural dwellers are to be found at the dances and the weekly movies, and they are among the spectators at athletic events. They share these activities to a less extent in



FIG. 100—Shack buildings are much in evidence in these northern villages.

winter for the distance which rural people can come regularly to winter events is not great; for curling, it is three to four miles.

The pattern of community organization found in Wembley is typical of frontier towns of its size. The great diversity of interests for such a limited population shows that urban ways of life are being extended to rural regions. The ambition of every village to become, if possible, "the metropolis of the north" is seen in the "boosting" of its Board of Trade and its athletic association which have much the same personnel. Nevertheless, these ambitious towns are undeveloped in many respects.



FIG. 101—Moving to a new townsite—a common occurrence when the railway enters a Peace River district.

In most of these villages the water supply is limited; so much so that a bath at the hotel costs an extra fifty cents. Many of the streets are not gravelled, and but roughly graded. Junk is scattered about the vacant lots and back yards. There are many frame shacks, and paint has not yet been extensively applied to homes. There are as yet very few homes which have the standard modern conveniences of even the small towns in the well-settled areas of the Canadian West. But then this is a pioneer region. It takes a long period of time to achieve the combination of sightliness and utility which is found, for example, in the New England village. Ordinarily the finest building in town is the public school, an example of local enterprise under the architectural guidance of the provincial Department of Education.

Outwardly, at least, these commercial villages are remarkably like their prototypes in the older sections of the Prairie Provinces.



FIG. 102—Fairview grain elevators.

FIG. 103—The centre of Fairview main street is reserved for parking.

FIG. 104—A northern town during spring thaw; gravel has not yet been applied to the main street.

First, the line of dark red elevators meets the eye, and on coming nearer one observes the broad main street with the cars parked along its centre in two rows facing each other. The elevators, the wholesale gas and oil stations, and a few buildings lie on one side of the railway; on the opposite side of the track is the railway station, and business houses are nearby on the main street; beyond are the side streets on which are the homes of the villagers, with here and there a school, hall, church, and sometimes a cottage hospital. The few other public buildings are found on or near the main street. On the edge of the village is the fair ground and athletic field. On train days and on Saturday evenings, when farm families come to town, the sidewalks of the main street are crowded by young people and knots of older people in neighbourly conversation, while the beer parlour and the Chinese restaurants which dot the region are meeting-places for a very extensive clientele. Although outwardly these villages are as monotonously alike as the fronts of chain store units, each has its own inner zest, its own intimate traditions and objects of attention. The manner of life is buoyant and friendly. To date there is just a hint of an upper class in this frontier society, but there are few barriers to the general social mingling of the population.

(4) The independent centres are Grande Prairie and Peace River, and a comparison of the role each plays in the life of the region was given in a previous chapter.⁶ Because it is more closely linked with smaller villages and agricultural districts of the region, it seems wise to choose Grande Prairie for further analysis. It has a considerable wholesale business for a small town. There are a few manufacturing plants for ice cream, bread and pastry, doors and sashes, and electric power. Its local weekly paper has quite a wide circulation, and it is active in defining the region's objectives and in attracting interest to them. The old-timers' picnic in 1928—enjoyed by those who entered the region before 1914—was made a memorable success by this weekly. When a large delegation of the representatives of the Canadian Boards of Trade visited the area in 1929, a copy of a special edition of this paper was placed in the hand of each delegate as he stepped off the train. In the newspaper account of the address of welcome there was a "pointing with pride to what Peace River people have accomplished in a few short years." While these people appreciate spontaneous admiration of visitors they dislike any suggestion of a patronizing

⁶ Chapter II.

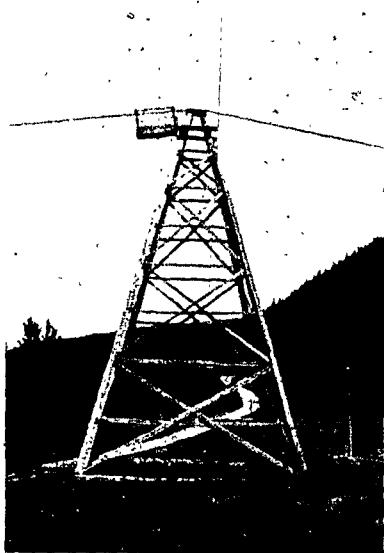
attitude on the part of the outsiders. Grande Prairie and other towns in the area have given an enthusiastic welcome and generous treatment to railway, commercial, agricultural, religious, educational and other delegations. This also applies to surveyors, writers, lecturers, and a host of visitors "who came to see the Peace River Country." No wonder that on their return home an irresistible impulse to write or tell about this north country and its energetic people has possessed them. Hardly a town or city in

Canada has escaped a lecture or a series of lectures on the Peace River area, many rather profusely coloured by the welcome the speaker had received. Fortunately, the area has a natural attractiveness which, together with its agricultural and human resources, makes immodest claims for it unnecessary.

Grande Prairie has excellent stores, and good taste is used in displaying their wares. Specialization is much in evidence, and a wide range of up-to-date goods may be obtained. The business concerns have in their management a group of alert and capable business leaders, who coöperate in putting their town on a map

FIG. 105—The "elevated" car across the Peace River at Dunvegan.

that includes much more than Alberta. Grande Prairie is the natural administrative centre for the region south of the Peace and in some measure for the districts north of the Peace. It has a land-office, the only courthouse north of Edmonton, a detachment of provincial police, and a municipal hospital of brick construction with complete equipment for hospitals of this type. It has an efficient staff of doctors and nurses. Grande Prairie is the district centre for three chartered banks as well as for several mortgage and insurance companies, for the agricultural agent, inspector of highways, inspector of schools south of the Peace, inspector of noxious weeds, for the provincial department of natural resources, and contains the offices of two rural municipalities as well as its own town council. Professionally, it has doctors, dentists, lawyers,



veterinary surgeons, a school inspector, and a dozen school teachers. In addition to its elementary and secondary public schools there is a Catholic separate school. It is the centre of eight religious denominations, six of which have resident ministers. It is the motion and talking picture centre of the northland. Not only does it have a well-equipped modern theatre, but Grande Prairie is also the centre from which the one or two-day-a-week programmes are circulated through the various villages throughout the whole region. A cable with a suspended basket was strung across the Peace at Dunvegan by the movie man, and when driftwood and floating ice make the river impassable he "cables" himself across.

Grande Prairie, too, like the smaller centres, is typical of the western plains region towns with its rectangular blocks and its wide streets. Among its civic "improvements" may be listed its gravelled streets, concrete sidewalks, a chemical fire-fighting apparatus, the daily delivery of water from public wells, garbage disposal to a dumping ground outside the town limits, and privately-owned electric light and telephone systems, the latter of which serves adjacent rural districts. The recent appointment of a committee under the provisions of the Town Planning Act of Alberta, indicates an organized attempt on the part of the citizens to guide the future development of their town.

An almost urban complexity characterizes Grande Prairie's social organization. In addition to its schools and churches, it has no less than 34 organizations for young and old, including a Board of Trade, a Women's Institute, eight agricultural associations, eight lodges, ten athletic clubs, and six organizations exclusively devoted to the interests of boys, girls, and young people. The resources of many of these organizations are united in sponsoring the larger community events, such as the two-day sports celebration, the two-day agricultural fair, the school fair, the musical festival, the winter carnival, and the Chautauqua programme. Then, too, there are the district conventions and conferences of teachers, of Women's Institutes, of religious leaders, of boards of trade, and of farmers' and farm women's associations. These events provide direct contacts for people from all parts of the Peace River region and, taken together with other institutional and administration functions mentioned above, demonstrate how Grande Prairie plays a leading role in extending and integrating the economic and social structure of the region.

This descriptive analysis of the region's commercial and social

centres shows their typical facilities. It has been noted that the larger centres are mainly within the well-settled districts. The fringe dweller for years has to confine his demands largely to the few scattered services which are available to him and which are allied to his low standard of living, while the older districts have the roads, the means of conveyance, and the centres which make possible the frequent use of a great variety of goods and services. The accessibility of goods and services for the region as a whole and for its typical districts may be measured by reference to the distances travelled by the 313 families surveyed.

The sample was treated first as a total and then subdivided for well-settled, transitional, and fringe areas, so that a regional comparison could be made (see Table XLVIII). The average distance from 17 different economic and social facilities was listed in ascending order for the sample as a whole. The basic economic services and primary institutions are closest, i.e., within a range of 4.5 to about 11 miles. Specialized services such as bank, high school, hospital, and various professional facilities are 13 to 26 miles away.

It is significant to note the influence of the 67 households from the fringe areas in raising the general averages. In well-settled and transitional areas we find elementary school, church, post office, and community hall within distances of 2.3 to 5 miles. Basic economic services, such as general store, hardware, lumber, implements, garage, and bank, are available within 5 to 8 miles, while specialized services are 8 to 16 miles away. The great drawback in the transition areas was the distance of 62.5 miles from a shipping point. Even the newly-settled fringe areas were closer to railway by an average of about 13 miles. But the railway has pushed into the Peace River Block since the summer of 1930, and the average distance from shipping point now would probably not be over 12-15 miles for the 52 households in the transition sample. The relatively low averages for most facilities in the transition areas, as compared with well-settled districts, is probably in part due to the method of sampling. The transition sample was collected quite close to Rolla and Pouce Coupé, while that from the old settled areas is widely scattered through Fairview, Berwyn, and Grande Prairie districts (Fig. 8). The high averages for the fringe sample of 67 households mean that many services such as school, church, bank, doctor, and medical or dental services are virtually inaccessible to many of these people. The accessibility of school, church, bank, and basic economic services,

may have improved during the three years since this survey was made. But the figures indicate some of the handicaps of pioneers during the early years of settlement.

The next two tables indicate the number of centres patronized by the 313 pioneer households for various types of goods and services. Table XLIX summarizes the data with regard to

TABLE XLVIII—AVERAGE DISTANCES FROM SPECIFIC TRADE, PROFESSIONAL, AND COMMUNITY FACILITIES FOR 313 PEACE RIVER FARM HOUSEHOLDS

TYPES OF SERVICE	TOTAL SAMPLE 313	WELL-SETTLED AREAS 194	TRANSITIONAL AREAS 52	FRINGE AREAS 67
	HOUSEHOLDS (miles)	HOUSEHOLDS (miles)	HOUSEHOLDS (miles)	HOUSEHOLDS (miles)
1. Grade school.....	4.5	2.3	2.9	12.2
2. Post office.....	5.1	4.0	4.3	9.1
3. Community hall.....	6.0	4.3	4.3	12.3
4. Farmers' local.....	6.1	4.5	4.9	11.9
5. General store.....	6.6	5.3	5.0	10.9
6. Church.....	6.9	5.0	3.1	15.4
7. Hardware.....	8.3	5.8	5.7	16.6
8. Lumber.....	9.3	7.1	5.4	18.7
9. Implements.....	9.8	6.7	5.9	20.3
10. Garage.....	10.9	7.7	5.9	23.1
11. Doctor.....	12.9	10.5	8.8	22.9
12. Bank.....	14.0	8.1	5.7	35.9
13. High school.....	19.7	11.4	8.3	52.7
14. Lawyer.....	20.9	13.4	10.8	50.2
15. Dentist.....	23.6	16.0	9.0	57.1
16. Hospital.....	24.3	15.6	14.6	57.1
17. Shipping point.....	25.9	7.8	62.5	49.8*

* If road conditions are considered, the 49.8 miles for the fringe areas are more difficult to traverse than the 62.5 miles in the transitional areas.

“elementary services” which include general store, hardware, implements, garage, and bank.⁷ The term “all services” includes those of the first group, and also the following: post office, shipping point (nearest railway station), elementary school, high school, church, community hall, hospital, doctor, lawyer, and dentist.

Elementary services are obtained in one to three centres by all

⁷ The item “lumber” was omitted, because the data were incomplete. It would appear, however, that better grade lumber is obtained at the same centres as other basic necessities. Rough lumber was bought at local mills by the following number of farmers: 33 in well-settled, 15 in transitional, and 43 in fringe areas.

TABLE XLIX—NUMBER OF TRADE AND SERVICE CENTRES PATRONIZED BY 313 PEACE RIVER FARM HOUSEHOLDS FOR ELEMENTARY SERVICES

DISTRICTS	TOTAL NUMBER OF FARM HOUSEHOLDS	NUMBER OF HOUSEHOLDS PATRONIZING						TOTAL CENTRES PATRONIZED
		1 centre	2 centres	3 centres	4 centres	5 centres	6 centres	
Well-settled areas..	194	123	60	11	..	..	..	20
Transitional areas..	52	44	7	1	..	..	..	4
Fringe areas.....	67	16	41	10	..	..	..	6
Total sample.....	313	182	105	26	..	..	..	27

the households. The wider scatter for the fringe sample, as compared with those from other areas, is due to the fact that there is little centralization of services as yet in the new settlements. It may be necessary, for example, to go to three different places for groceries, lumber, and banking facilities.

Table L shows that farm families patronize from one to six centres for all services. The largest groups for well-settled and transitional areas patronize three centres, while the groups patronizing four centres are only slightly smaller. The wide scatter for the fringe group is again due to the lack of facilities within the areas concerned rather than to the exercise of choice on the part of farm families. In older settlements, on the other hand, a favourable location with

TABLE L—NUMBER OF TRADE AND SERVICE CENTRES PATRONIZED BY 313 PEACE RIVER FARM HOUSEHOLDS FOR ALL SERVICES

DISTRICTS	TOTAL NUMBER OF FARM HOUSEHOLDS	NUMBER OF HOUSEHOLDS PATRONIZING						TOTAL CENTRES PATRONIZED
		1 centre	2 centres	3 centres	4 centres	5 centres	6 centres	
Well-settled areas..	194	10	35	66	55	23	5	58
Transitional areas..	52	..	..	23	18	7	4	11
Fringe areas.....	67	1	13	11	11	16	15	13
Total sample.....	313	11	49	100	84	51	18	77*

* This total does not equal the sum of the figures above it, because five centres, namely Peace River, Fairview, Grimshaw, Berwyn, and Hythe were patronized by more than one of the sub-groups.

respect to larger towns such as Grande Prairie or Fairview obviously tends to reduce the number of centres patronized. It should be mentioned, too, that 26 of the 77 centres patronized are elementary school centres. In addition to these there are 14 places that serve as schools and community centres. This gives a total of 40 centres, or about one-half of the total number listed, whose functions are limited to their immediate rural neighbourhoods. Yet allowing for these complicating circumstances the tables suggest two inferences concerning the 313 Peace River farm families. First, these families appear to buy basic goods and services in the centres nearest to them; secondly, they range farther afield to three, four or even more centres for other services, particularly for the more specialized ones. This latter practice, when it is facilitated by the advent of good roads and the increasing use of automobiles, is an important conditioning factor in the division of function among trade centres, and in the consequent growth of larger, specialized centres. The data raise several questions as to the frequency of direct contact made with the larger centres. How many times a year, for example, do farm families travel more than 15 or 20 miles on shopping expeditions, or to visit the hospital, doctor, or movie in a distant town? And what is the effect of the winter season in narrowing down the "cruising range" of rural people on the frontier? More detailed investigation is needed to answer these and similar questions.

CHAPTER IX

SOCIAL INSTITUTIONS IN THE PIONEER REGION

THE population centres of the region are points in the network for the distribution of institutional services. In pioneer settlements, as everywhere else, the daily lives of the people are characterized by a variety of interests and desires apart from those directly related to the business of making a living. Among them are the desires for religious participation, for the education of children, for recreation of various sorts, and an interest in politics and in civic affairs. A variety of formal and informal groups are gradually organized to satisfy these interests. The activities of these groups and the interrelations, which in time are developed among them, comprise what is termed the social structure of the community.

An approach to the study of the social structure and growth of pioneer communities may therefore conveniently be made through these channels of group activity. By tracing their functions, their distribution, and the successive stages in their development, we may gain some understanding, not only of the institutions themselves, but of the life of the neighbourhood, the village, or the region which is their matrix.

The analysis of the social structure of Peace River communities will be treated under the following headings: (1) Religious organization; (2) Educational institutions; (3) Hospital and health services. The three major topics of religion, education, and health are given separate mention, while a variety of social, political, and other leisure time organizations are grouped together, in the following chapter.

1. Religious Organization

The main object here is to discover how and when religious facilities become available to settlers, and to note what adjustments are made by both churches and their followers in response to the new conditions—in short, to see how the church becomes a part of the social fabric in a new region.

Denominational questions are for the present purpose left in

the background. No attempt will be made to determine the relative strength and rate of growth of specific religious organizations. The fact that references are made more often to some religious groups than to others is due to the unevenness of the available data.

Religious organization in pioneer areas passes through certain typical periods of development which are characterized by the following agencies:

- (a) The itinerant missionary.
- (b) The mission church.
- (c) The self-supporting church.

It is important to emphasize that while these stages are applicable to religious groups in general, there is nevertheless great variation in the forms they take in different times and places, and even among different groups within a region at a given time. Moreover, the work of the churches in an area does not advance along a solid front in the sense that all groups pass through the same stage at the same time. There may be great differences, for example, between the rate of progress of two organizations working in the same locality at the same time, or between similar units of a church as they function in adjacent settlements. Yet allowing for all these variations, we can still trace common trends in the development of different denominational groups, owing to the fact that the new environment presents similar problems to all the churches in a region. Keeping in mind all these qualifying circumstances, the above periods may be briefly described as they apply to frontiers in general and to the Peace River Country in particular.

(a) Travelling missionaries in a pioneer region are the forerunners of organized religious groups. They are sent by distant religious organizations, and are entirely supported by outside funds. Their stay in any given locality is short, at best only a few months, and it is usually confined to the summer season. They seek to reach all settlers, irrespective of former religious affiliation; and their services, which are characterized by a minimum of ritual, are held in schools, private homes, or other available buildings. Their work is, without doubt, greatly appreciated by people in the new area, who at one time participated in religious organizations elsewhere.

(b) The work of the mission church is carried on by an ordained resident minister, who is located as centrally as possible with reference to the people he serves. In addition to the congregation at

the centre of his parish or charge, he visits several preaching stations in adjacent hamlets or rural districts. The number varies for different denominations and depends also on the religious distribution in the areas concerned. Weekly services are held in the centre church, while the outlying points are reached once or twice a month during the summer, but only at irregular intervals, if at all, during the winter.

The chief characteristic of the mission church compared with the church in an established community is that it is heavily subsidized by the older churches of the denomination. Two-thirds of the cost of the central church and of the minister's residence is often contributed by outside organizations, and there are a few cases where the entire building cost is met by the parent organization. The minister's salary likewise comes largely from outside sources, though as settlements grow older, an increasingly larger share is contributed by local congregations. Mission funds for less favoured areas may also be raised by these frontier churches before they themselves become self-supporting.

The central congregation has well organized subsidiary societies whose leaders are drawn largely from the professional and business classes. One or two subsidiary organizations may also be found at rural points, especially where there is a church building, but they are smaller and less well organized than those at the central church. Many rural preaching stations, however, lack all subsidiary organizations.

(c) The self-supporting church, as the name denotes, marks the final stage in frontier religious organization. The local congregation now meets all its own current expenditure and contributes regularly to mission work in other communities. It may also give financial support to educational institutions, to hospitals, or to other larger group undertakings. Local autonomy implies some measure of control in the selection of ministers, and it may also mean that the minister devotes all or most of his time to the one congregation. The self-supporting churches on the frontier, like those in old communities, have many subsidiary organizations, including a church board, women's auxiliary associations, boys' and girls' clubs, and well-organized Sunday School and adult Bible classes. All these groups seek to satisfy within the church a variety of social, educational, and religious interests of their members and adherents. Most of the supporters of this type of church are members,

a point of contrast with mission churches where the majority of people on the church roll are adherents rather than members.¹

Before applying the above generalizations to the frontier churches of the Peace River Country, it is necessary to analyze its population with regard to trends in religious distribution. The Roman Catholic population formed the largest group in 1911, at which date they outnumbered the Anglicans, the next largest group, by five to one. There were less than fifty people of either Presbyterian or Lutheran affiliation. Yet even at this time the area had no less than eleven denominational groups, as well as a small unspecified group. The period since 1911 has been one of rapid religious development, and it is closely related to the unparalleled expansion of agricultural settlement. The white population increased more than ten times in the census period 1911-1921, and the 1921 total was almost trebled during the next ten years.

The number of denominations in the Peace River area rose to 19 in 1921 and to 23 in 1931. There were in addition several hundred people of various sects and a small number reported as "unspecified". The major groups in 1921 in order of their numerical strength were: Roman Catholic, Presbyterian, Anglican, Methodist, and Lutheran. The increase in the last three groups was quite marked by 1921. This is particularly true of the Presbyterian group, which rose from seventh to second place and almost equalled the Roman Catholic group. The Methodists now approximated the Anglicans in number, and the Lutherans also showed a proportionately larger increase than the latter. Other groups which warrant recognition include the Baptist, the Greek Catholic, and the Mennonite Churches.

Since 1921 the denominational distribution has changed, largely because of the church union in 1926 when the Methodist, the Congregational, and the Presbyterian Churches joined to form the United Church of Canada. This reduced the major religious groups in the Peace River area to three, and accounts also for the disappearance of the two first mentioned groups from the census reports for 1931. Those of the Presbyterians who remained outside the union continued to be listed under the old name. In 1931, this group comprised 3,400 people in Peace River area, or about 9.8 per cent. of the total population. This seems a large proportion

¹ The term "member" means a person who is formally affiliated with a given religious organization, whether active or not, while an adherent is one who is on the local church roll, irrespective of whether he has met all the qualifications for membership or not. This difference in relationship applies only to Protestant groups, since Roman Catholics are all considered members of their church.

considering the small number of Presbyterian congregations in the area. It is probably explained by the fact that many families retain their Presbyterian affiliation, regardless of whether they attend other churches or not.

The accompanying table (LI) shows what the trend has been in religious distribution for the Peace River area during the last decade. The United Church group now leads, comprising about one-quarter of the total population. The Roman Catholic group,

TABLE LI—RELIGIOUS GROUPS IN PEACE RIVER AREA, 1921 AND 1931*

DENOMINATION	NUMBER OF PERSONS		PER CENT. OF TOTAL	
	1921	1931	1921	1931
All Groups.....	12,131	34,494	100	100
Church of England.....	1,924	4,889	15.9	14.2
Roman Catholic.....	2,759	7,914	22.8	22.9
United Church.....	...	8,717	...	25.3
Presbyterian.....	2,713	3,396	22.4	9.8
Methodist.....	1,835	...	15.1	...
Congregational.....	27	...	0.2	...
Baptist.....	547	912	4.5	2.6
Lutheran.....	1,419	5,337	11.7	15.5
Adventists.....	43	302	0.4	0.9
Mennonites.....	90	630	0.7	1.8
Other Sects.....	442	665	3.6	1.9
Greek Church.....	282	1,441	2.3	4.2
Various**.....	46	255	0.4	0.7
Unspecified.....	4	36	0.0	0.1

* The data for 1921 is for Census Division No. 16, while that for 1931 includes also the Peace River Block. Data from *Census of Canada, 1921*, Vol. I, Table 34, and from *Census of Canada, 1931*, Bull. No. XXI, Table 7.

† Other Sects comprise Brethren, Christians, Church of Christ, Disciples, Christian Science, Evangelical Association, International Bible Students, Mormons, Salvation Army, and a number of unspecified sects.

** Various includes Jews and eastern religions, such as Confucians, Buddhists, etc.

almost trebling its number, has maintained much the same proportion, nearly 23 per cent., as, in 1921. The Anglican group dropped from third to fourth place, and is exceeded by the Lutheran. The Anglican proportion decreased from 15.9 to 14.2 per cent., while that for the Lutheran rose from 11.7 to 15.5 per cent. of the total population. The Baptists are decreasing in relative importance, while the Greek Church and the Mennonites, though still small, show proportions for 1931 that almost double their corresponding 1921 figures. The Adventists and the group headed

"Various", which includes Jews and members of eastern religions, show a slight percentage increase. Leaving out the group "Other Sects" the combined Protestant groups bear a ratio of 2.6:1 of the combined Catholic groups.

A comparison of the religious affiliation of the households from well-settled, transitional, and fringe areas with the census data for the corresponding settlements shows some bias in the selection of the sample.

TABLE LII—RELIGIOUS GROUPS ACCORDING TO AREA FOR 313 PLACE RIVER FARM HOUSEHOLDS
(All Persons Included Irrespective of Age)

AREAS	TOTAL HOUSEHOLDS	TOTAL PERSONS	PROTESTANT	ROMAN CATHOLIC	UNSPECIFIED	PERCENTAGE DISTRIBUTION		
						Prot.	R. C.	Un.
Well-settled....	194	682	439	153	90	64.4	22.4	13.2
Transitional....	52	174	131	14	29	75.3	8.0	16.7
Fringe.....	67	234	170	19	45	72.7	8.2	19.1
Whole sample...	313	1,020	740	186	164	67.9	17.1	15.0

NOTE: Average No. of Persons per household for whole sample. 3.5
 " " " " Protestant household. 3.7
 " " " " Roman Catholic household. 4.3
 " " " " household for Unspecified. 2.4

The "Unspecified" group included 38 single male households.

The Protestants comprise 67.9 per cent. of the whole sample, Catholics (including Greek Catholics) 17.1 per cent., while the religion of 15 per cent. was unspecified. How representative this sample is of the whole Peace River area may be judged from the fact that 72 per cent. were listed as Protestants, 27 per cent. as Catholics,² and about 1 per cent. was unspecified, according to the Census of Canada, 1931. The unspecified group in the sample is exceptionally large and is partly accounted for by the fact that enumerators failed to obtain specific information on the question of religious affiliation for all households. This group is proportionately larger in transitional and fringe areas than in older settlements, though in terms of absolute numbers the situation is reversed. It is significant, too, that out of 68 households in the unspecified group, 38 were those of single males. One suspects that lack of

² *Census of Canada, 1931*, Bull. No. XXI, Table 7. These data include the Peace River Block population, but not the 1,333 people in Battle River settlement north of Census Division No. 16.

church facilities or of religious interest also helps to explain the large proportion here.

Turning to the sub-areas we find the Catholic sample for the well-settled areas fairly representative, with 22.4 per cent. of the total population of these settlements. The Protestants accordingly are under-represented, unless we assume that most of those in the unspecified group belong to the Protestant sample.

The reverse situation holds in the transitional and fringe areas. The Protestants are over-represented with 75 per cent. and 73 per cent. respectively, as compared with 70 per cent. and 64 per cent. for the total population of these settlements. The



FIG. 106—The Fairview Anglican Church.

Catholic sample of 8 per cent. for the newer areas is far too small, since this religious group comprises 29 per cent. to 35 per cent. of the total population in transitional and fringe areas respectively.

This great difference is explained by the fact that economic and geographic rather than religious factors have formed the basis of collecting the survey sample. But in spite of these discrepancies the sample is probably fairly representative of the area studied.

The census data in the preceding tables indicate that the religious life of Peace River Country at present revolves about three major groups, namely, the Roman Catholic, the Anglican, and the United Church. In addition to these there are eight other denominational groups, each totalling more than 300 people, nine smaller Protestant sects, a few Jews, some numbers of eastern

religions, and finally, an unspecified group. In three decades the area has attracted one-tenth as many denominational groups as the whole of the United States with its centuries of religious history. The social significance of such a multiplicity of religious groups is far-reaching, the more so, since their members have scattered widely and are mingled in nearly every locality. Exceptions do occur, as in Friedenthal and Valhalla where German and Scandinavian pioneers have clustered in group settlements. But the problem of all the churches is essentially the same, namely, that of reaching a widely scattered constituency. Moreover, their difficulties include not only those imposed by geographic, climatic, and economic con-



FIG. 107.—The United Church and manse at Fairview.

ditions but also the indifference to church matters on the part of many settlers, and the competition that necessarily develops where two or more churches are working in the same area. Just how these conditioning factors affect the distribution of religious facilities is the matter to be considered in the following pages.

Some indication of the distribution of religious facilities in Peace River can be obtained from a description of church organizations in successive zones of settlement. Only the more objective facts will be dealt with there, such as areas served, church buildings, place of residence of the minister, frequency of services, types of subsidiary organizations, etc. There has been no attempt to obtain complete data about all the churches for the whole area. No reference, for example, is made to the Spirit River district, or to those adjoining the town of Peace River. It is thought, however,

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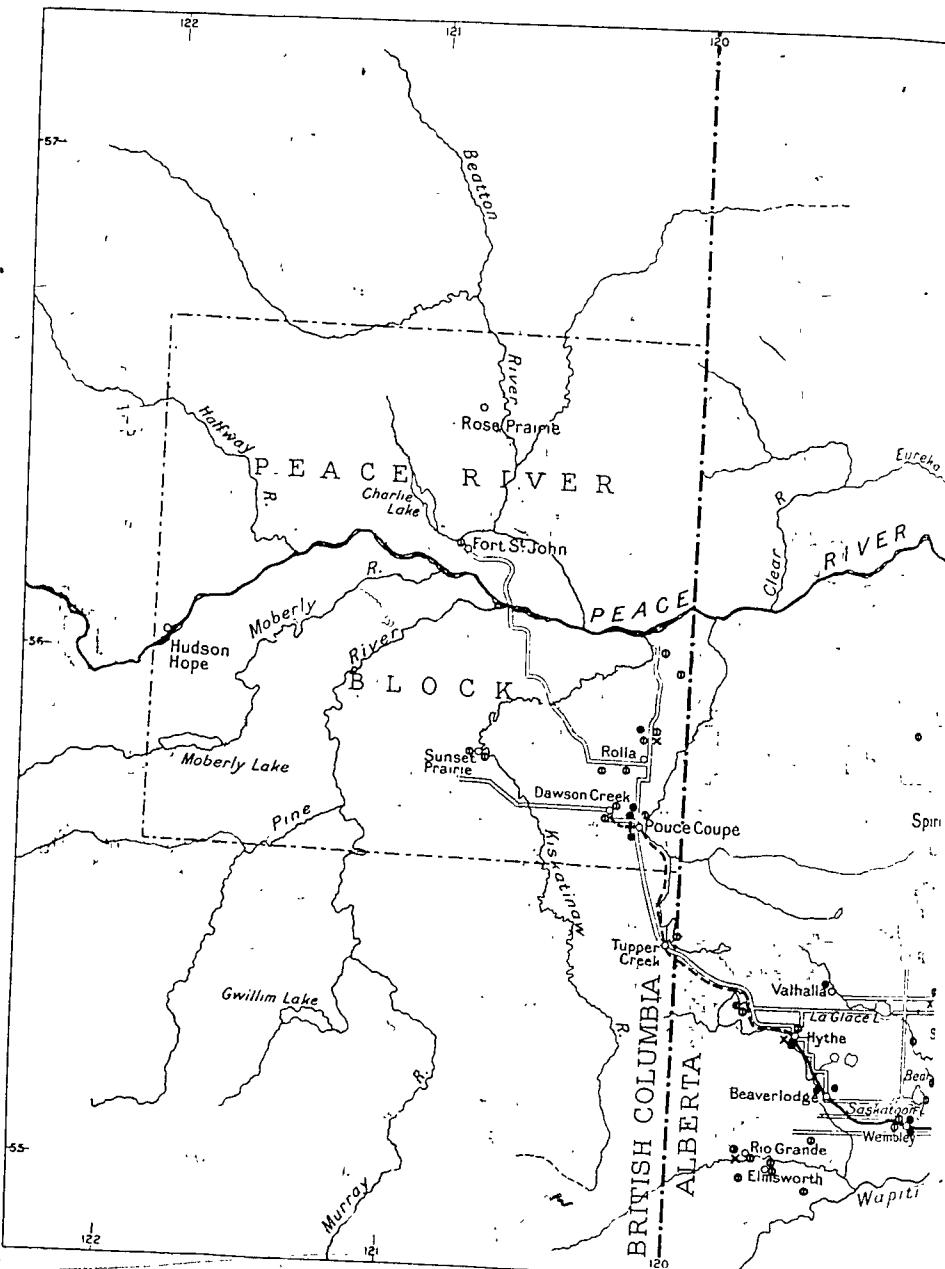
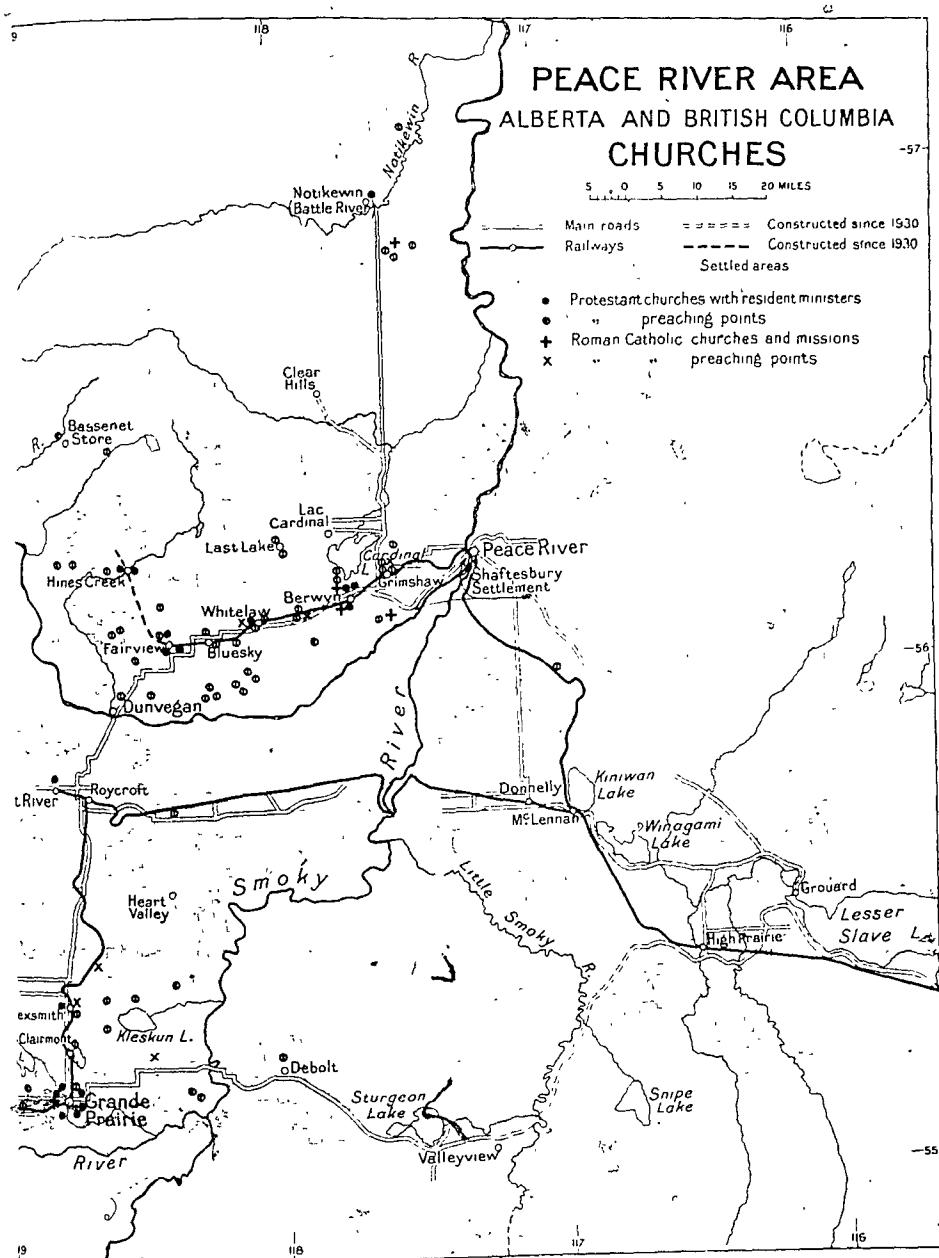


FIG. 108—Churches and preaching



points in the Peace River Area.

that the churches, for which data are at hand, are fairly representative of the region.

There is a marked concentration of religious organizations in the railway towns and villages. Most centres have at least one, but more often two or three churches, each with its resident minister, and, in addition, one or more minority groups served by ministers living elsewhere. The presence of a church generally implies a resident minister and vice versa, but there are a few congregations which have one without the other. Table LIII

TABLE LIII—RELIGIOUS INSTITUTIONS IN PEACE RIVER TOWNS AND VILLAGES

CENTRE	TOTAL POPULATION	NO. OF CONGREGATIONS SERVED BY RESIDENT MINISTERS		NO. OF GROUPS SERVED BY VISITING CHURCH LEADERS
		1	2	
Grande Prairie.....	1,464	6		2
Berwyn.....	200	4		1
Fairview.....	260	3		1
Hythe.....	278	2		2
Wembley.....	183	2		2
Beaverlodge.....	211	2		1
Sexsmith.....	304	1		2
Rolla.....	150*	1		3
Pouce Coupé.....	150*	3		1
Dawson Creek.....	100*	1		1
Whitelaw.....	100	1		3
Grimshaw.....	137	2		2
Brownvale.....	50			3
Clairmont	110	1		1

* Approximate.

shows the multiplicity of services in 14 trade centres, and indicates a direct relationship between the size of the centre and the number of congregations.

The pattern of denominational distribution of churches follows quite closely that of the various religious elements. The Roman Catholics have strong congregations in Grande Prairie and in Pouce Coupé, at Friedensthal near Fairview, and at Berwyn. The Lutherans have resident ministers at Berwyn and at Valhalla, each of whom serves a number of preaching points. The work of the Presbyterian group is centred at Grande Prairie and at Brownvale, with a resident minister at the former place. United Church and Anglican congregations are the most numerous, as one would

expect from the proportions they form of the total population. They have church buildings and resident ministers in practically all villages with populations of 150 people or more. The smaller villages are preaching points for one or both of these denominations and they often have only one church building.

As one passes from these centres out into the open country, however, there is a rapid "decline" of religious institutions. Church buildings are few, and are found only in older settlements such as Griffin Creek, Lake Saskatoon, and Bezanson. Rural schools, therefore, are the customary meeting places. The schools within a 15-mile radius of a larger village centre reflect something of the



FIG. 109—Anglican Church on the left and Catholic Church on the right at Berwyn.

diversity of services found in the latter, since they are preaching points for two, or sometimes three different denominational groups. This applies for example to Erin Lodge, Lothrop, and Kerndale schools near Fairview, and to Buffalo Lake and Bezanson schools in the Grande Prairie districts. In the more distant rural settlements both churches and schools become fewer, and private homes often serve as meeting places.

The cost and type of church buildings vary for different religious groups and different places. Log churches or small frame buildings built at a cost of \$500 to \$1,000 are commonly found in rural districts. Frame structures costing from \$1,000 to \$6,000 are found in the villages, while still more expensive and spacious churches are found in larger towns such as Grande Prairie. Distant organizations have helped to finance these churches, either by gifts or loans, the amount of outside assistance varying for different

groups: one-third from the local congregation and the rest from outside sources are common proportions. The local church properties also include ministers' residences, financed in the same way as the churches. The residences vary in cost between \$1,200 and \$2,400.

Most of the ministers in the Peace River Country, as has already been implied, live in the larger village centres. Exceptions occur in the case of the Lutheran minister at Valhalla and the German-Catholic priest at Friedenthal whose congregations are mainly in the open country. All the resident ministers are ordained men, and many have pursued advanced theological study. Many of them,



FIG. 110—Anglican Church and rectory at Grande Prairie.

especially the leaders of the Catholic Church, have been in the Peace River Country more than five or ten years. A few of the United Church and Anglican ministers are assisted by students during the summer months, but most of the student ministers are found in the outlying settlements, such as Hines Creek, Clear Hills, Peace River Block, etc.

It follows naturally from what has been said above, that the villages are favoured in the matter of church services. The central churches of nearly all religious groups have weekly church services throughout the year, and regular Sunday School classes as well. Nearby rural points are served once or, at most, twice a month by a given minister, and those further out are reached less often. The country points may not have church services for two or three months during the winter season. Only

one minister, of the score or more interviewed by field workers, stated, that he was able to reach his rural preaching stations regularly throughout the cold season. The attendance at rural points varies from 12 to 20 persons. In the villages the average is 20 to 40 persons for the Protestant groups, and 60 or 70 for the Catholic congregations. Grande Prairie is an exception in that two of its major church groups have an average attendance of more than 100 people.

Subsidiary organizations are concentrated in the village centre, while the rural districts have fewer and less well-organized groups. The larger congregations of both Protestant and Catholic churches



FIG. 111.—German Catholic centre at Friedensthal; church, rectory, hall, and athletic grounds.

in Grande Prairie have an almost urban variety of subsidiary groups, including church boards, women's associations, mission societies, choirs, young people's societies, dramatic clubs, Sunday Schools, and boys' and girls' clubs. Fewer of these groups are found in the smaller centres. Those most commonly found are the church board, the women's auxiliary association, and the Sunday School. As we pass out to the rural districts, the numbers dwindle still more. Wherever there is a church building there will usually be a women's organization, which raises funds for the repair of the church or for new equipment, and at the same time provides recreation for its members. Sunday Schools are found in the better-settled rural districts, but there are few in fringe areas.

With regard to distances travelled to church there is a significant difference between Protestants and Catholics. The former usually

attend whatever church is nearest, so long as it is one of the Protestant group. The Catholics, on the other hand, hold themselves aloof from all other groups and travel long distances to attend their own church services. These differences are closely related to the policies of their respective churches. The major Protestant groups invade all hitherto unchurched areas and seek to enlist the support of all, irrespective of former affiliation, while the Catholics seek to reach mainly their own people. The Catholics organize fewer but stronger congregations than the Protestants. The work of the latter, on the other hand, tends to be spread over larger areas, with a consequent overlapping among the several



FIG. 112—The United Church and manse at Whitelaw.

denominational groups. The coming of a second church in a locality often weakens the first one, since many adherents leave it in order to join that of their own religious denomination.

Financially the great majority of the Peace River churches are still in the mission stage. In the area studied only two congregations were self-supporting, namely, the United Church and that of the Roman Catholics in Grande Prairie. The other church groups, even in larger centres such as Berwyn, Fairview, and Hythe are subsidized to the extent of one-third to one-half of the minister's salary. The student missionaries are entirely supported by the central church organizations. Heavy subsidization characterizes the work of both the Roman Catholic and the United Church in the Battle River area, where new church buildings and residences for the ministers have been erected at total costs of \$5,000 to \$6,000,

contributed entirely from the outside. The parent churches of the two congregations also pay all current expenses at the present time.

Apart from the Battle River area, most fringe settlements are still in the travelling missionary stage as regards religious facilities. In the summer student missionaries and travelling missionaries visit Hines Creek, Clear Hills, and distant parts of the Peace River Block. A Sunday School Mission Van under the auspices of the Church of England, visited Peace River Block in 1930, and missionaries sent out by the "Fellowship of the West", an Anglican organization in Montreal, also worked in these fringe settlements.

Apart from economic drawbacks, and difficulties imposed by the



FIG. 113—The United Church and manse in Notikewin, in Battle River settlement. The buildings are on skids, ready to be moved, if the entry of the railway should change the site of the village.

physical environment, there are the problems of assimilating diverse cultural elements. This difficulty faces the Catholic churches, especially in Berwyn and Battle River. Their congregations include English, Irish, German, Polish, Ukrainian, and Russian people, some of whom were born in Canada, while others are recent immigrants. The services are at present conducted in three languages, but the priests hope that English may in time become the common tongue.

With the above distribution of religious institutions in mind we may now proceed to study the other side of the picture, namely that of participation by individuals. A sample group of 313 farm households was studied in order to determine religious interest as expressed in degree of affiliation, attendance, and financial contribution. These indices were studied for the sample as a whole,

as well as for sub-groups representing old, transitional, and fringe areas, and the data are summarized in the following tables.

One test of the effectiveness of the church is the proportion of the population which it enrolls. Two types of relationship are commonly recognized, namely "members" and "adherents". The former are on the membership roll of the church, whether active or not. The adherents mean all those whose names are on the church roll of a given congregation: they call themselves by a church name, irrespective of whether they fulfil all the qualifications for membership. Every Catholic is considered a member of his church regardless of age. This is by no means the case for Protestants, and besides, most Protestant churches set an age

limit. - In order, therefore, to make a fair comparison between the two major groups, the children below 13 years of age were excluded from the sample. This age limit is agreed upon by the Institute of Social and Religious Research in United States, and further, it is the age at



FIG. 114—The minister visits his scattered parishioners on Hines Creek "fringe".

which candidates are received for confirmation in the Church of England. Limiting the sample, then, to all persons 13 years of age or over, gave a total of 749 persons, including 525 Protestants, 106 Catholics, and 118 of unspecified religion. The Catholics were all members; the Protestant group showed that 45.8 per cent. were members, and the remainder, 54.2 per cent. were adherents; no data were available for the unspecified group. If we consider the 749 persons as one group, we find 46.2 per cent. were members, 38.1 per cent. were adherents, and 15.7 per cent. were not specified in either category. It is also of interest to note that 494 persons or 66 per cent. of this group attended church occasionally.

It is difficult to interpret this information on church membership and adherence, as there are no available figures for Canada with which we may compare them. In 1926 the proportion of church members for the total population of United States was 46.6 per

cent.³ If we consider the total population of our sample, placing the children in the same category as their parents, we find that 42.5 per cent. are church members. This is probably a fairly high proportion for the rural population in a new area. The group of 118 persons, or 15.7 per cent. of all adults raises certain questions. If more information were available this group would probably be somewhat reduced. In any case it is quite characteristic, not only of frontiers, but of older areas, to have groups of people who are wholly disinterested in religion.

The membership and adherence classification is, however, not an adequate one, by which to measure religious interest, especially in new areas. The fact that many people are adherents rather than

TABLE LIV—CHURCH ATTENDANCE OR. NON-ATTENDANCE OF ALL PERSONS
13 YEARS AND OVER
(Classified as Protestants or Roman Catholics)

	NUMBER OF PERSONS			PERCENTAGE	
	Total	Attending	Non-attending	Attending	Non-attending
All groups.....	631	494	137	78.3	21.7
Protestants.....	525	408*	117	77.7	22.3
Roman Catholics.....	106	86	20	81.1	18.9

NOTE: No data were available for the "unspecified" group of 118 persons.

* 217 persons or 53.3 per cent. of the total Protestants attending church are members; the remaining 191 persons or 46.7 per cent. of the attending group are adherents.

members does not necessarily mean a lack of interest. This is particularly true in frontier congregations, where the membership, at least for Protestant churches, is rarely more than 50 per cent. of the total congregation. This statement is borne out by the Peace River sample, which showed that 53.3 per cent. of those Protestants who attended church occasionally were members, while the remaining 46.7 per cent. were adherents.

Religious interest may be measured to some extent by records of church attendance. From Table LIV all children below 13 years of age have been excluded, and likewise the unspecified group of 118 persons for which no data were available. The table indicates that 78.3 per cent. or well over three-fourths of all Protestants and Catholics in the sample attend church. Of the two major groups,

³ *Statistical Abstract of the United States Census, 1929, Table 53, p. 63.*

the Catholics rank first with 81.1 per cent. attending church, and the Protestants second with 77.7 per cent. Because of complete lack of religious facilities and long distances to church, non-attendance was in many cases involuntary. The average distance to church for the survey sample of 313 households was 6.9 miles for the whole group, but regional averages disclosed great differences between old and new districts. The figures were 5, 3.1, and 15.4 miles for well-settled, transitional, and fringe areas respectively (see Table XLVIII). The relatively low average for the transition

TABLE LV—FREQUENCY OF CHURCH ATTENDANCE DURING ONE YEAR OF PERSONS 13 YEARS AND OVER
(Classified as Protestants or Roman Catholics)

NO. OF TIMES DURING ONE YEAR*	TOTAL	PROTESTANTS	ROMAN CATHOLICS
Not attending.....	137	117	20
1 - 4.....	121	101	20
5 - 9.....	58	58	0
10 - 14.....	64	61	3
15 - 19.....	17	16	1
20 - 24.....	51	45	6
25 - 29.....	36	23	13
30 - 34.....	24	22	2
35 - 39.....	18	18	0
40 - 44.....	34	27	7
45 - 49.....	15	7	8
50 - 54.....	56	30	26
TOTAL.....	631	525	106

areas is probably due to the over-representation of families close to village or open-country centres, while the high average distance for the fringe settlements means that church facilities are virtually lacking for a large proportion of the households sampled.

The information regarding frequency of attendance is summarized in Table LV. The distribution shows a concentration below 5 and above 50 attendances for the year. The Protestants are largely responsible for the low attendance figures, although it is noted that the Catholics have 18.9 per cent. of their number in the low attendance group. The Catholic group definitely leads in the high attendance frequencies, with 38.6 per cent. attending church 40 times or more, while only 12 per cent. of the total

Protestant group show this frequency. The concentration in the groups below 10 is in part due to the few opportunities these people had to attend church. The high attendance record of the Catholics is due in part to the opposite phenomenon. Of the 106 attending Catholics, 81 persons, or 77 per cent. of the Catholic sample, lived in the Fairview district where religious services were accessible once or twice a week. There were 39 persons, or 6.2 per cent. of the church population of 631 people, who attended churches of denominations other than their own. Among them were 34 who attended the United Church, and 5 who went to the Anglican church. These figures bear out an earlier statement that Protestants who are interested in religion will attend whatever Protestant church is accessible to them until one of their own denomination is established. It is, of course, impossible to say what part of the low attendance figures is due to lack of opportunity and what part is due to lack of interest. But if we grant that sparse population and newness of settlement are detrimental to church attendance, it seems likely that interest in religion varies less between old and new settlements than these attendance figures would indicate. In other words, if people in older and newer areas had equal opportunity to attend church, their attendance records would be more similar.

Religious interest has sometimes been measured, not by membership or attendance, but by the "money measure". It is a debatable question whether the amount of financial support given to the church is a reliable index. It is fairly evident, from what has already been said about the Peace River Country, that were it not for outside aid, this region would have little or no organized religious work. The information in the following tables (LVI-LVIII) suggests, moreover, that the amount of church contributions is related, not so much to religious interest, as to economic factors.

The distribution of church contributions for 636 persons is shown in Table LVI. The percentage of the church population, which gives financial support to religious organizations is very similar for the two major groups, i.e., 75.9 per cent. for the Protestants, and 77.3 per cent. for the Catholics. The average amounts given are also similar, i.e., \$4.50 per person for the Protestants, and \$4.70 per person for the Catholics. A relatively high proportion, i.e., 24.1 per cent. of the Protestants and 22.7 per cent. of the Catholics, make no contribution, but to conclude that this is evidence of lack of interest in the church would be very rash indeed. It

would seem, in view of the small contributions in general, that it was lack of money rather than lack of interest which prevented these people from being more generous to their respective churches. That economic conditions are in great measure responsible for the small contributions made by farm families is further borne out by a comparison of old and new settlements. Table LVI indicates

TABLE LVI—CHURCH CONTRIBUTIONS FOR 636 PERSONS 13 YEARS OR OVER*

CONTRIBUTIONS (dollars)	TOTAL PERSONS	PROTESTANTS	ROMAN CATHOLICS
None.....	155	131	24
Less than 2.....	75	66	9
2 - 3.99.....	125	110	15
4 - 5.99.....	88	70	18
6 - 7.99.....	72	60	12
8 - 9.99.....	36	30	6
10 - 11.99.....	39	29	10
12 - 13.99.....	15	10	5
14 - 15.99.....	2	0	2
16 - 17.99.....	6	6	0
18 and over.....	23	18	5
 TOTAL.....	636	530†	106
 Average Contribution per person.....	\$4.52	\$4.50	\$4.70
Percentage of Group who contribute.....	76.1	75.9	77.3

* The whole adult sample, inclusive of those whose religion was not specified, was 749 persons; 64.16 per cent. of this group contributed to church funds.

† This total includes 5 persons whose religion was not specified; they contributed a total of \$15.00.

that relatively more people contribute to the church in old settlements than in new, and furthermore, the average amount given per person is directly related to the stage of settlement.

The proportions who give to the church vary from 58.8 per cent. in the fringe sample to 80.3 per cent. of the sample from well-settled areas. These people contribute amounts varying from \$1.03 per person in the fringe to \$6.84 per person in well-settled areas. Such small contributions from sparsely populated rural settlements help to explain why pioneer churches are heavily subsidized by outside sources. The theory that the economic status of farm households is a determining factor of how much

TABLE LVII—CHURCH CONTRIBUTIONS OF 749 PERSONS 13 YEARS OR OVER,
IN WELL-SETTLED, TRANSITIONAL, AND FRINGE AREAS

AREAS	TOTAL PERSONS 13 YEARS AND OVER	NO. WHO CONTRIBU- TE TO THE CHURCH	PER CENT. CONTRIBUTING	AVERAGE AMOUNT PER PERSON CONTRIBUTING (dollars)
Well-settled.....	468	376	80.3	6.84
Transitional.....	128	88	68.7	3.74
Fringe.....	153	90	58.8	1.03
Whole sample.....	749*	554	74.0	5.40

* This includes the "unspecified" group of 118 persons, of whom 5 contributed to church funds.

they contribute to religious purposes is supported by Table LVIII. The 313 Peace River farm families were classified according to the amount spent on cash living expenses. The average amount of church contributions for all households shows a fairly steady upward trend from \$1 per family in the lowest group, to \$51 per family in the highest group. The general average of \$10.00 for the sample as a whole indicates that the great majority of the farm families are massed toward the lower end of the distribution. A total of

TABLE LVIII—RELATION OF CASH FAMILY LIVING EXPENSE TO CHURCH
CONTRIBUTIONS FOR 313 PEACE RIVER FARM FAMILIES*

CASH FAMILY LIVING IN GROUPS (dollars)	NO. OF FAMILIES	AVERAGE NO OF ADULT- UNITS	AVERAGE CHURCH CON- TRIBUTIONS PER FAMILY (dollars)	FAMILIES ACTUALLY CONTRIBUTING		
				No.	Per cent. of Whole Group	Average Church Contributions (dollars)
0 - 249....	29	1.28	1.00	6	21	7.00
250 - 499....	76	2.02	5.00	31	41	11.00
500 - 749....	80	2.68	7.00	47	59	12.00
750 - 999....	48	2.90	15.00	39	81	19.00
1000 - 1249....	31	3.60	15.00	27	87	17.00
1250 - 1499....	23	3.89	11.00	17	74	15.00
1500 - 1749....	13	3.57	10.00	8	62	16.00
1750 - 1999....	8	4.17	29.00	7	88	34.00
2000 - 2999....	5	3.18	51.00	5	100	51.00
WHOLE SAMPLE	313	2.67	10.00	187	60	16.00

* The term "family" here is taken to mean a farm household, whether composed of parents and children, a married couple, or a single male.

187 farm families, or 60 per cent. of the survey sample, contributed to the church, and the average amount given was \$16 per family. That ability to support the church is directly related to cash living is seen from the upward trend in the proportion of families who contribute; the percentages vary from 21 per cent. in the lowest cash living group to 100 per cent. in the highest group. The upward trend in average contributions, from \$7 per family in the lowest to \$51 per family in the highest cash living group, further supports the above statement. The fact that the average number of adult-units shows an upward trend, suggests that the amount contributed to the church is also directly related to the size of the farm family.

Two other items of living expenditure were compared with church contributions, namely, the amounts spent on theatres (movies) and those spent on social activities, such as fees for social organizations, fairs, sports, and other recreational activities. It was thought that this comparison might show the relative importance of the church to these rural families, in so far as the money measure is a reliable index. The average amount spent on theatres was \$7.64 per household, while that for other forms of social participation was \$23.38 per household. The theatre was a strong competitor of the church in all income groups, and in the highest group the theatre won out; in only 3 cases out of 313 families did the church alone receive support. There were 179 families, or 57.2 per cent. of the sample, who contributed to the church, but it is safe to say that 95 per cent. of the total group supported either the theatre or other social activities, or both. The amounts spent on the non-religious organizations also reflect something of the attendance-rate for purely recreational activities. On the other hand, it must be remembered that church contributions are not accurate indices of church attendance. Many pioneer families who attend religious services contribute little or nothing to the church revenues. However, the fact remains that the non-religious organizations in the Peace River Country are practically maintained by local funds, while the churches remain in the mission stage for a long time.

It would be interesting to know what part village people play in supporting the frontier churches, and to see how this proportion compares with the support given to other community activities. An answer to this and similar questions would involve a closer study of village congregations themselves. It is a reasonable

surmise that they, directly at least, contribute a good deal more money toward the work of the churches than do the rural people in Peace River area.

2. *Educational Institutions in the Peace River Area*

The development of the schools in frontier areas, like that of the churches, follows a definite trend, whose successive stages may be named as follows: (a) pioneer schools, (b) schools in older settlements. A brief outline of the characteristics of each of these stages will serve as a basis for interpreting the educational institutions of the Peace River Country.

(a) In unorganized settlements, the matter of education is an individual concern. We have noted in earlier chapters the efforts of church organizations to establish mission schools, particularly for Indian children. In areas that are sparsely settled by white people the problem of formal education is in many cases entirely neglected. Some parents, however, attempt to solve the question by teaching their children at home, or else by making arrangements with others, perhaps neighbours, to instruct their children. Governments, too, have in recent years attempted a solution by organizing correspondence schools, in which children are directed in their studies from distant centres by means of instructions and exercises forwarded by mail. These efforts eventually result in the organization of state-supported schools, which are the main topic of discussion here.

The establishment of pioneer schools depends on a combination of circumstances—the influx of population, the initiative of local settlers, and the advice and financial assistance of outside governmental agencies. The characteristics of the pioneer school are easily recognized. The first school-house is usually an unpretentious and poorly equipped building, which is built from local materials, such as logs or rough lumber. The school terms are short, and commonly confined to the summer months because of poor road conditions, or inadequate heating facilities in the school building. The teachers are often inexperienced and they seldom stay more than a term or two in any one district. Exceptions to this rule occur, where a settler or a settler's wife is engaged to teach in the new school. The problem of a suitable boarding place for the teacher is a serious one in districts where most of the homes are shacks or log houses with two or three rooms at the most. This condition alone frequently explains the short stay of teachers.

Delay in building the first school, short terms of operation, frequent change of teachers, and road conditions which prevent regular attendance even when school is open, all combine to retard the pioneer children's educational development, as compared with that of children in more favoured communities.

The pioneer school is heavily subsidized by outside governmental funds. This assistance takes the form of grants or loans towards the building of schools, the provision of equipment, and a substantial cash grant towards the teacher's salary. Local contributions include voluntary labour in the erection of the school, funds raised at social functions, and eventually taxes. The tax income is small and difficult to collect, since most pioneers are in straitened financial circumstances.

(b) As settlements grow older their schools tend to pass beyond the pioneer stage. Improvements in their economic conditions enable the pioneers to build more permanent and better-equipped schools, to maintain full-time operation, and to engage experienced teachers. All these factors make for better progress of the pupils, and a larger proportion are able to complete the elementary school course. The one-roomed or ungraded school is the rule in rural districts, but schools in villages and towns have two or more rooms. The larger teaching staff, better equipment, and the grouping of the school population in several classrooms all make for greater efficiency in class instruction. One or two high school grades are usually added as the frontier village centres grow older, and in some places the full secondary course is given. The greater accessibility of the village schools, the larger child population, and the greater permanency of the teaching staff also help to make many extra-curricular activities possible. In these schools one may expect to find well-organized athletic teams, school choirs, as well as literary and debating societies such as are common in villages or town communities of the older regions.

The Department of Education of Alberta has a well-defined policy with regard to frontier schools. According to the Alberta School Act, a school district may be formed in any unsurveyed part of the province where there is a minimum of eight resident children of 5-16 years of age, and where at least four persons are liable to assessment on their land. Organization takes place upon the petition of three residents in the proposed district. The local school inspector acts in a consultative capacity, and he may undertake the work of organization in the absence of local petitioners. Plans

for district boundaries and the erection of the school building must receive his recommendation in order to gain the educational department's approval.

The provincial government realizes the need for outside assistance to frontier settlements, and it has gradually evolved the following scheme to promote education. Where schools are erected without securing debenture loans the department provides a special building grant of \$200 toward purchase of windows, doors, and shingles, for log or unfinished rough-lumber schools. Other grants to the poorest schools include \$15 at the time of organization of the new district, a school library grant amounting to about \$15-\$20, payable annually for five years, and also cash grants which total \$3.90 per teaching day during the first two years of operation.⁴

This means that new districts are assisted to the extent of about one-third of their building costs, if they avoid going into debt, and they also receive cash grants, totalling about 78 per cent. of the teacher's salary, calculated at the rate of \$1,000 per annum.⁵

Even larger subsidies are paid by the British Columbia Government to the schools in the Peace River Block. Here the government pays all of the teacher's salary⁶ during the first two years of operation, and it assists also in the erection of schools on plans somewhat similar to those followed by the Alberta Government. In the Peace River Block the new school districts raise about \$200-\$300 per year by a tax of 1-6 mills on the assessed valuation of occupied land, a fund which covers other operating expenses as well as the reduction of building debts. During the third year of operation these assisted schools pay a share (usually one-half) of the teacher's salary. At the time of survey in 1930 there were 25 schools within the Block and 2 outside, of which all but 3 received the larger subsidy.

If the British Columbia scheme were followed in the Alberta section it would mean 30-40 per cent. increase of present government expenditure on each rural school during its first two years of operation. This involves no small item of expenditure as during one

⁴ In addition to the regular grants paid to all new rural schools, a poor district is given the equalization grant. This special assistance, established in 1926, provides \$2.80 per teaching day to districts whose assessment is less than \$10,000. The grant is scaled down by 20 cents per teaching day for every additional assessment of \$5,000, and is payable for not more than 160 days per calendar year. It is not given to districts whose assessment is \$75,000 or over. See Alberta School Act, 1931, pp. 129-130.

⁵ This rate of salary was commonly paid to rural teachers in the Alberta section of the Peace River area in 1929-1930.

⁶ The rate paid to rural teachers in the Peace River Block was about \$1,300 per annum in 1930.

SETTLEMENT OF PEACE RIVER COUNTRY

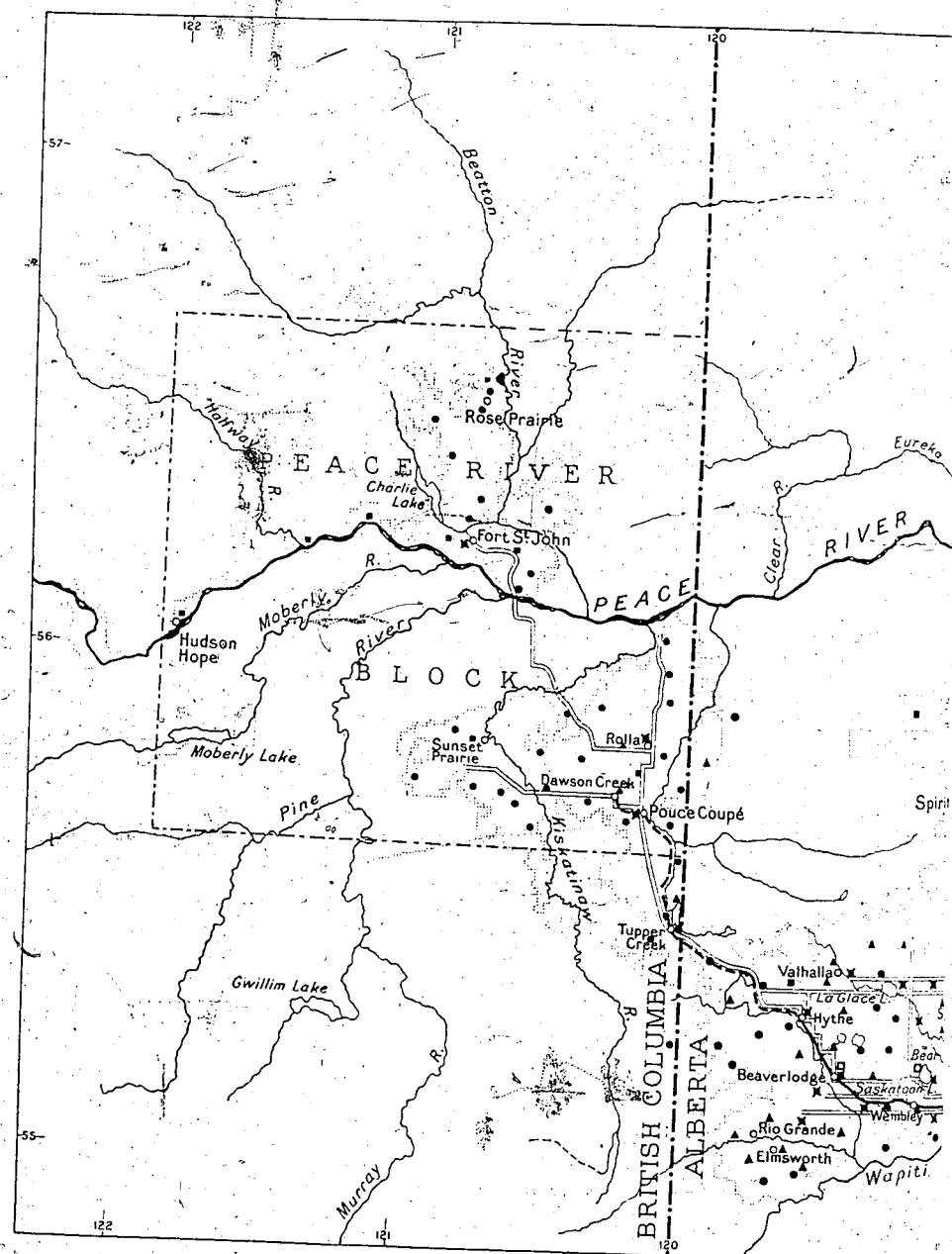
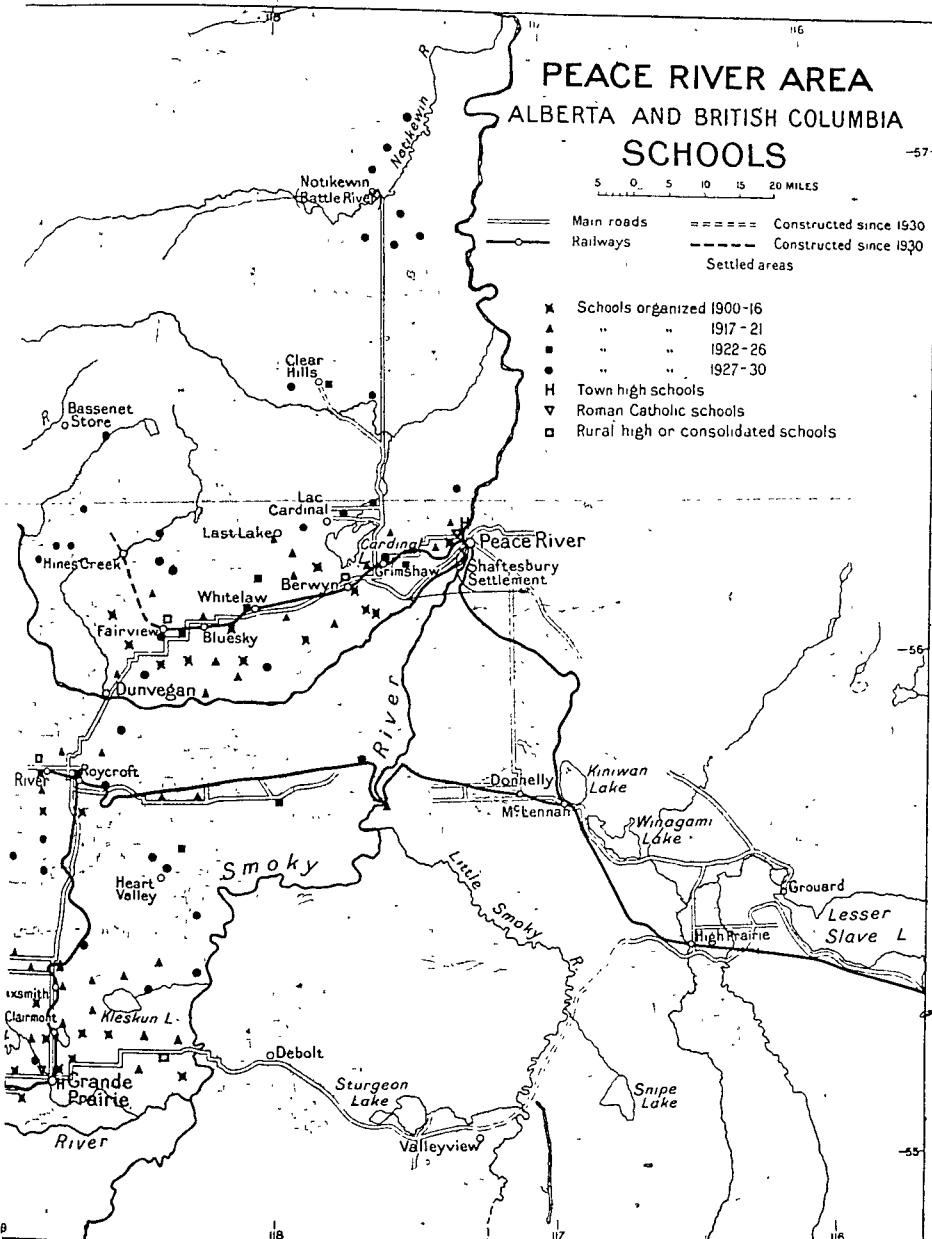


FIG. 115—Schools in the Peace River Area



classified according to dates of organization.

year (1930) more than 27 new school districts were organized north of the Peace River alone.

Other differences in the educational policies of the two provinces are seen in the matter of administration. The British Columbia policy is one of centralization, while decentralization is the keynote of the Alberta public school system. This is seen especially in regard to the engagement of teachers. The British Columbia Government selects the teachers, at least for the heavily subsidized rural schools, while in Alberta this matter is left to local school boards. The latter make contacts with applicants for schools through advertisements in provincial newspapers, a system which at best is inefficient, and which functions exceptionally poorly in outlying districts. One alternative, sometimes used in pioneer districts, is to ask for assistance from the school inspector or the Department of Education.

The Peace River Country is served by two school inspectors on the Alberta side, while the Peace River Block is included in the work of a third inspector. In 1930 the Alberta inspectors had 106 and 101 school districts in their respective districts, each of which extended over distances of 300-400 miles. Limited railroad facilities and poor roads add to the difficulties of covering these huge territories. In outlying districts motor vehicles are abandoned for horse and buggy, while the annual inspection trip from Peace River town to Fort Vermilion, 300 miles north, is made by river boat. In addition to their duties of supervising classroom instruction the inspectors assist, as already mentioned, in the organization of new schools, and they may be official trustees for as many as half a dozen districts, where there are difficulties in obtaining a local school board. It follows that inspectors are able to give only a few hours annually to the supervision of each school, and to the direction of inexperienced teachers.

It is important to note here, that both the Alberta and British Columbia governments maintain a relatively high standard in the qualifications required of rural teachers. The days of the "permit" teacher, i.e., one granted temporary professional status, so common, a decade or two ago, are gone. Government grants to new schools are made conditional upon the local board obtaining the services of a qualified teacher, i.e., one who has completed at least three years' high school as well as the provincial normal school course.

Because education on the frontier is subsidized, the pattern of distribution of schools in the Peace River Country is more uniform

than that of any other social institution, and it is a fairly good index of the distribution of population since schools tend to follow the pioneers to the very margins of settlement. School-houses are about 4 to 6 miles apart in the well-settled areas, but distances are greater on the fringe where one or more sparsely settled areas intervene between "pockets" of settlement. As regards size and equipment, the gradation parallels that found in the case of the churches. The only town schools, with separate classrooms for each of the elementary and the high school grades, are found in Peace River and Grande Prairie. The latter has also a two-roomed Catholic separate school supported by the taxes of the Catholic



FIG. 116—The Grande Prairie court-house with the public school on the right.

ratepayers. It is subject to the same supervision as other public schools, and receives similar grants. The smaller centres each have 2- to 4-roomed schools, while hamlets like Brownvale and the rural districts have only one-roomed schools.

As regards secondary education, one or two grades are added in most village schools, and high school work may be taught in certain rural schools also, where the inspector gives his permission. In the Peace River Block the British Columbia Government has assumed full responsibility, by providing three years' high school work at Rolla and Pouc Coupé. In Alberta, however, a different plan has been worked out, in addition to those already mentioned. This new plan involves the consolidation of two or more rural school districts to form a rural high school district. The school is located as centrally as possible, usually in a village which participates in the scheme. The provincial government assists the

project by grants, totalling about one-third of the operating costs, provided an average of at least 15 pupils is maintained. The net carrying costs to the local districts is shared proportionately on the basis of the total assessment of each. Local taxation varies from 1-3 mills on the dollar, and is usually about \$3-\$5 per quarter section (160 acres). This scheme has been adopted in Fairview, Berwyn, Spirit River, and Beaverlodge, and the local people are optimistic about it.

Schools in the frontier village centres have apparently reached the standards set elsewhere, but the rates of progress in rural settlements are very unequal, even for adjoining school districts. This



FIG. 117—Roman Catholic separate school at Grande Prairie.

is inferred from a study made of 16 rural schools, all located within 15 miles of Fairview. One of these schools had been established 3 years, another 4 years, and the rest were 5-15 years old. The tax rate varied from 10 to 25 mills, and all school taxes were collected by the local municipality for those districts or parts of districts which lay within its boundaries. This method of collecting taxes has proved to be more efficient than that used in districts outside the municipality.

A fairly stable financial condition was indicated by the fact that only one school of the sample group received more than the ordinary grant of 90 cents per teaching day.

Differences in the financial conditions of these 16 schools were reflected in their school plants. Four still used log schools, 2 made use of community halls, 3 had the older type of frame buildings, while 6 had modern frame buildings on concrete foundations.

Four schools had solved the problem of accommodation for the teacher by building a teacher's residence.

All of these schools were staffed by qualified teachers, the majority of whom had taught less than five years. Female teachers outnumbered male teachers by two to one, a common phenomenon in elementary schools. As regards length of school term, 13 of the sample group had attained full-time operation, i.e., ten months per year. Their progress was characterized as "normal" or "advanced". The remaining three were open 6-8 months during 1929-30. The inspector classifies these three schools as "retarded", and adds the following illuminating comments: "many newcomers; just began

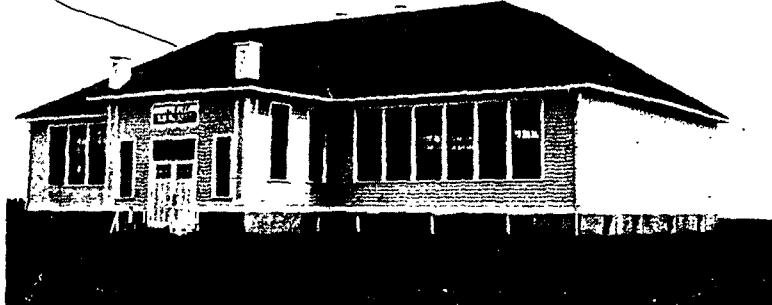


FIG. 118—A typical modern school building in the village of Berwyn.

operation in a new building; distances great, poor attendance, indifferent attitude." In two German districts the major factors of retardation included the language problem and dissension between Roman Catholics and Protestants.⁷

The history of these schools revealed early financial struggles, and in some cases poor administration or disputes over boundaries at the time of organization. These experiences appear to be repeated with minor variations in the fringe areas. Recent instances of inefficient administration may be cited, for example, from Battle River Settlement where two new districts had gone in debt during a boom period to build schools costing \$2,000 to \$2,500. They were falling behind in salary payments to the teachers after a few months' operation, and the prospect is that of a six-month school term for the next few years. The instance of an adjoining district is in

⁷ Information from Inspector George L. Wilson, Peace River town.

striking contrast. Here the people built a log school at a cost of \$700. The government paid about one-third of the cost, while the rest was raised locally by voluntary efforts. By this method the district avoided debts and was able to finance eight-month terms from the beginning.

Other difficulties in new districts arise from the fact that legal means of tax enforcement are not applicable to homesteaders until they have received the patents on their land, an attainment which requires at least three years. Even if the homesteaders were willing

and able to pay the school tax, the amount would only be \$12-\$15 per year for a quarter section.⁸

While many of these struggles of pioneer schools are due to environmental difficulties, there are others which

suggest weaknesses in the educational system itself. The administration of schools seems to be a matter of much local experimentation, in spite of governmental efforts to control it, and the results are often detrimental to all concerned, but particularly to the children. Larger units of administration and therewith more centralized control would seem to offer a solution to many of these problems, but this would involve some loss of local autonomy, a price which many are not willing to pay.

Some notion of the results of inadequate educational facilities in fringe areas can be obtained by studying the question of retardation. An approach was made to this problem by comparing a sample group of 298 children from 13 newly-settled Peace River districts with the total school population for the province. It should be noted that eleven schools in this sample group had been established only one or two years; the two remaining ones were 3 and 8 years old, respectively. Table LIX shows the average age of children for the two groups mentioned. In the Peace River sample the average ages for the first five grades are from 0.5 to 2.2 years higher than the corresponding averages for the province. These two extremes apply to Grades II and IV, respectively, and

⁸ This estimate is based on a mill rate of 20-25 and an assessment of \$600 per quarter section, an arbitrary valuation commonly used in Peace River homestead areas.



FIG. 119—A log schoolhouse.

there is more than one year's retardation in Grades III and V. The number of children in the Peace River sample who are above Grade V is too small to give representative averages, but the figures, such as they are, indicate little or no retardation for the pupils in Grade VII or higher.

Another index of retardation is obtained if we compare the percentage of pupils in each grade who are under age, normal, or over age. The sample group mentioned above is again used, with the exception of the three children in the high school grades (i.e., above Grade VIII). Columns 4 and 5 indicate that the percentages



FIG. 120—Notikewin school, in Battle River settlement. An unfinished modern frame school.

of children *under age* in each grade for the Peace River sample is negligible, except in Grade VIII. The percentages of children of *normal age* in the Peace River sample are less than the corresponding provincial figures for the first 7 grades. The differences between corresponding proportions vary from 17.3 per cent. in Grade II to 38.6 per cent. in Grade VI. The inverse relationship is found, however, if we look at columns 8 and 9, which give the percentages of pupils *over age*. The proportion of children over age in each grade for the Peace River sample is about twice as great as the corresponding proportion for the province. The total proportions show that 37.6 per cent. of the Peace River pupils are of normal age, as compared with 60.5 per cent. for the province. But the situation is practically reversed for the percentages over age, i.e., 61.1 per cent. for the Peace River group, and only 36.7 per cent. for the province.

The problem of retardation is closely related to the rate at which settlement takes place and therewith to the density of population in a given locality. Where pioneers trickle in a few at a time and

scatter widely, as in Hines Creek district, north-west of Fairview, the result is delay in the establishment of schools for five to ten years, perhaps even longer. Apart from the sparse population, which may mean that the requisite number of children is lacking, there may be delays due to the unwillingness of bachelor householders to assume tax obligations. In one settlement an old pioneer who acted as land guide solved this problem in a unique

TABLE LIX—AVERAGE AGES OF THE SCHOOL POPULATION IN 13 NEWLY ESTABLISHED PEACE RIVER SCHOOLS AS COMPARED WITH THOSE FOR THE PROVINCE OF ALBERTA, 1930*

GRADE	AVERAGE AGE FOR THE PROVINCE† (years)	AVERAGE AGE FOR 13 PEACE RIVER SCHOOLS (years)	TOTAL NUMBER OF CHILDREN IN THE 13 PEACE RIVER SCHOOLS
I.....	7.2	8.0	116
II.....	8.2	8.7	41
III.....	9.5	11.0	48
IV.....	10.5	12.7	39
V.....	11.4	12.5	21
VI.....	12.7	14.0	13
VII.....	13.5	13.3	3
VIII.....	14.6	13.8	14
IX.....	15.6	14.5	2
X.....	16.7	16.0	1
TOTAL.....			298

* Data from Annual Report of the Department of Education, 1930, p. 94, and from unpublished material supplied by the Department of Education, at Edmonton, Alberta.

† In 1930 the total number of pupils in Grades I to X inclusive for the Province was 162,280.

way by settling all the married men in one neighbourhood and all the single homesteaders in another, with the result that there was little local opposition when the first school district was organized. Unmarried settlers do not always exhibit a hostile attitude, however, towards the school; in Old Beaverlodge and several districts north of the Peace, single men contributed their share of free labour in building the first log schools.

Some mention ought to be made, here, of the brighter side of frontier education, namely, the special facilities which are rapidly being developed in the older settlements. Annual school fairs are held at five village and town centres in Peace River Country through the coöperation of local and provincial school authorities.

Medals, ribbons, and other awards are given for the best display of art, handicraft, and other school work, and for the best flowers and vegetables grown by the pupils. The Department of Agriculture coöperates by promoting calf- and swine-clubs among children, and it offers a free trip to the nearest agricultural school to the boy and girl who obtain highest aggregate awards at each school fair centre. These fairs serve to bring the children of various

TABLE LX—NUMBER AND PERCENTAGES OF CHILDREN IN EACH GRADE UNDER AGE, NORMAL, AND OVER AGE

(Comparison of Elementary School Population in 13 Newly Established Schools in Peace River Area with that for the Province of Alberta).*

Grade	TOTAL IN EACH GRADE		PER CENT. IN EACH GRADE					
	Province of Alberta†	13 Peace River Schools	UNDER AGE		NORMAL		OVER AGE	
			Province of Alberta	13 Peace River Schools	Province of Alberta	13 Peace River Schools	Province of Alberta	13 Peace River Schools
I.....	27,307	116	1.8	0.8	70.6	47.5	27.7	51.7
II.....	19,971	41	1.6	2.4	63.7	46.4	34.7	51.2
III.....	19,851	48	1.9	...	60.7	22.9	37.4	77.1
IV.....	18,982	39	2.4	...	58.6	20.5	39.0	79.5
V.....	17,627	21	3.2	...	56.3	19.0	40.5	81.0
VI.....	15,930	13	3.6	...	54.2	15.6	42.2	84.4
VII.....	13,684	3	4.3	...	56.3	33.3	39.4	66.7
VIII.....	13,444	14	5.4	14.3	57.2	64.3	37.4	21.4
TOTAL...	146,796	295	2.8	1.3	60.5	37.6	36.7	61.1

* Provincial data from Annual Report of the Department of Education, 1930, p. 97.

† If data had been available, a sample of *rural* schools in an older area would have made a more satisfactory unit of comparison than those for the province as a whole. Such a comparison might reveal a lesser degree of retardation of the Peace River children than that shown here.

districts together in friendly competition, and help to widen the educational interest of the general public.

Another school project, which has been developed in the new region in recent years, is the musical festival which is held alternately at Peace River town and at Grande Prairie.⁹ Over 600 contestants took part in a recent event of this kind. The programme consisted of vocal and instrumental solos and duets, of choral selections by both adults and children, and of selections in

⁹ These two towns have held separate festivals since 1930.

elocution. The festival is supported by churches, schools, Women's Institutes, and a great many other organizations, and gains region-wide attention. These events, together with the importance, already mentioned, of the school as a neighbourhood centre, indicate that educational institutions play a major part in the social life of Peace River communities.

3. *Health Organization in the Peace River Country*

One of the greatest drawbacks in newly-settled areas is the lack of health facilities. In the early stages of settlement its solution involves an expenditure beyond the means of struggling pioneers, even if they unite their efforts—a very improbable event where population is sparse and widely scattered. A larger unit of population is needed to support a hospital than to maintain either a school or a church. Yet the pioneers are often unable to provide even these neighbourhood institutions for themselves during the early years of settlement. The early establishment of health facilities in sparsely settled areas is therefore a development which must be initiated from the outside.

The stages through which frontier health organizations pass may be characterized as:—(a) That of the outpost hospital, (b) That of the public or community hospital.

(a) The first stage, as the name suggests, corresponds to the period of early settlement. The bringing of the first nursing and other health facilities to the new area is the work of social welfare agencies, operating usually under private auspices. For centuries churches have been the chief sponsors of health services to outlying settlements, and it is only during comparatively recent times that other organizations have become active in this work.

A hospital, staffed by one or two nurses, or a visiting nurse, represents the first health unit on modern frontiers. Both agencies serve large areas and attend to all types of cases. The outpost hospital is small, often housed in a building adapted temporarily for the purpose, and it lacks much of the equipment, and many of the conveniences found in older hospital centres. The work is heavily subsidized from outside sources, but as settlements grow older and more prosperous, they contribute towards its upkeep. Hospital fees are relatively high for those who are able to pay, but a great many people are treated without charge. This type of hospital is then essentially a charitable institution.

(b) No clear-cut division separates the above stage from that of the public or community-owned institutions. The pioneers gradually assume more and more responsibility for the upkeep of the first hospital. Contributions, at first made by individuals or by small neighbourhood groups, are increased by regular annual grants from local municipal organizations. These grants imply increasing control over the outpost hospital, and in time its administration passes into the hands of the local community. The earlier "hand-to-mouth" methods of finance are now replaced by a system of local taxation. This change gives greater financial stability, and the erection of a new hospital plant becomes possible.



FIG. 121—Fairview Hospital in the left foreground; the police station is directly opposite.

The interest taken by local groups in this larger project often continues to express itself in special gifts and contributions.

The new hospital plant is larger and better equipped than its predecessor. It usually attracts one or more private physicians to the centre in which it is located, and thus makes medical services more accessible to the local community. Continuous support from potential as well as from actual patients makes it possible to lower the hospital rates, and hospital taxation becomes in effect a type of sickness insurance. There are several other developments in "state medicine" on the frontier which may best be referred to in dealing with health organization as it exists at present in Peace River areas.

Health facilities in the north country, as everywhere else, tend to be concentrated where they may serve the largest number of people. It is to the larger villages and towns, therefore, that we must look for the wider medical and hospital services. Grande Prairie and Peace River towns might well be called the north

frontier's health centres, since both have modern, municipal hospitals as well as medical and dental services. The former, for example, has three private physicians, a chiropractor, and three dentists. As we pass to the smaller centres the health services become fewer and less complex. Fairview and Berwyn, which rank next in size to the above-mentioned towns, have only small cottage hospitals of the "outpost" type. The only other hospital in the area studied is the little Red Cross hospital at Pouce Coupé in the Peace River Block. Hence, distances between the hospital centres range from 25 to 75 miles.

As regards medical facilities we find one or two doctors where there are ~~outpost~~ hospitals, but villages such as Wembley, Beaverlodge, and Hythe, which are located in the Grande Prairie "hospital area", have but one resident physician each, and none is found in hamlets such as Brownvale and Clairmont.

It appears, then, that a village with at least 200-300 people, together with the residents of the adjacent rural trade area, has the minimum population which can command the services of a resident physician. The result is, that, with the exception of Pouce Coupé and Rolla, doctors are located in railway centres 15-20 miles apart. Dentists are spaced still further apart. North of the Peace they are found only at Peace River town and at Fairview, while dental services in the southern districts, ~~apart~~ from Grande Prairie, are available only at Sexsmith, Hythe, and Rolla. In short, dentists are located in centres 20-60 miles apart.

The above distribution of health services applies to well-settled and to transitional areas. It shows a sharp gradation as one passes from larger centres to adjacent villages and hamlets. In the fringe areas all health services are lacking except in Battle River where a woman doctor, paid by the provincial government, is located.

Ten years earlier, when the transitional district of Pouce Coupé-Rolla was a fringe, a doctor began his practice there and he has remained. Long distances and difficulties of communication are conditions which prevail for many years in the outlying districts of the Peace River Country. The experiences of this Pouce Coupé doctor are illuminating:

Roads throughout the Prairie were barely passable most of the year. The road from Grande Prairie was such that freighting required an experienced "skinner", and freight from the railway frequently cost 5 cents a pound. To one of the medical fraternity these conditions were accentuated, inasmuch as most of the

travel was off the beaten path, long traverses being necessary over the most execrable trails. The doctor's house was built during 1920 and 1921, before the hospital was built. It was frequently turned into a hospital at a moment's notice, with the doctor's wife acting as a nurse. The writer recollects one night especially, being present at a happy gathering at the doctor's, while one of the worst blizzards was blowing outside. It was a terrible night. Just before the party sat down to refreshments a rider came in with an urgent message from the Pine for a doctor. Within a few minutes he had hitched, and was off carrying a supply of sandwiches. The police sergeant for the Peace River district used to say that no one would undertake the road to Moberly under the worst conditions except this doctor. He used to say that while he and others were resting at some trapper's cabin, the doctor would be the most likely person to drop in,

TABLE LXI—AVERAGE DISTANCES TO VARIOUS HEALTH SERVICES FOR 313
PEACE RIVER FARM HOUSEHOLDS

AREAS	NO. OF HOUSEHOLDS	DISTANCE TO		
		DOCTOR (miles)	DENTIST (miles)	HOSPITAL (miles)
Well-settled.....	194	10.5	16.0	15.6
Transitional.....	52	8.8	9.0	14.6
Fringe.....	67	22.9	57.0	57.1
Whole area.....	313	12.9	23.6	24.3

and, against the advice of the others, push on through the blinding storm, through places where trees grew so close that there was barely room for a team to pass and most expert handling was required to save the sleigh from damage, even in daylight.¹⁰

The placing of two district nurses in the Bear Lake and Griffin Creek districts, before the railway came, are examples of the earlier efforts of the government to meet the needs of fringe settlements. The visits of travelling clinics to various village and rural centres is a more recent effort of the Department of Public Health.

In preceding paragraphs some indication has been given of how accessible health services are to village people. What the situation is with regard to the rural population, may be inferred from Table LXI which shows average distances to various health services for 313 farm households. For the sample as a whole the averages are 12.9, 23.6, and 24.3 miles to medical, dental, and hospital services, respectively. But the distances vary greatly for different types of settlement. The three types of health facilities are within

¹⁰ James H. Clark, *Peace River Block News*, December 16, 1930.

an average range of 9 to 16 miles for the households in old well-settled and in transitional areas, but averages of 23 to 57 miles for the fringe sample mean that health facilities are virtually inaccessible to many of the pioneers. These distances are more impressive when it is realized that the doctor's standard charge per mile is \$1. Of course there are compromises in respect to this standard charge.

The trends in hospital accommodation and hospital finance for old and new settlements may be illustrated by brief reference to the hospitals at Grande Prairie, at Berwyn, and at Pouce Coupé. The first is a municipally-owned institution, built and equipped at a total cost of \$90,000. It has 40 hospital beds, well-equipped



FIG. 122—The municipal hospital at Grande Prairie.

operating and emergency rooms, as well as X-ray case room, nursery, and sun-rooms. All modern conveniences have been installed, such as steam heat, electric light, running water, and a sewage system. The staff includes 9 graduate nurses, and consultative services are given by 7 doctors from Grande Prairie and neighbouring villages. In 1929, 996 patients in all were admitted; of these, 13.9 per cent. were maternity cases.¹¹ The people of the Grande Prairie district are very proud of this hospital and its staff.

The hospital area which supports this institution includes Grande Prairie, Wembley, Sexsmith, and Clairmont with their surrounding districts. The assessment area comprises a million acres, and taxes for 1929 totalled \$19,142, a little less than half of the total expenditure for that year. The remaining costs were

¹¹ *Annual Report, 1929* (Edmonton: Dept. of Public Health, Alberta, 1930).



FIG. 123—The Berwyn cottage hospital.

met by patients' fees of roughly \$16,000, a government grant of about \$4,600, and donations and sundry earnings totalling nearly \$4,900.

The public-ward rates are \$1.50 per day for taxpayers, and \$4.00 per day for non-taxpayers; private-ward charges are \$3.00 and \$5.00 per day, respectively, for these two types of patients. A corresponding scale of rates is set for the use of the operating room. It is important to note, also, that recent legislation makes the municipality responsible for the hospital fees of indigent patients who have had 90 days' residence within its boundaries.

This municipal hospital, which was built in 1929, receives generous support from a great many local organizations, including



FIG. 124—The Red Cross Hospital at Pouce Coupé in the Peace River Block.

some of the churches, the Women's Institute, and the United Farm Women of Alberta. Practically all the branches in Grande Prairie district of the last two named have contributed towards its equipment, furnishing a ward or part of one, or purchasing a special piece of operating-room equipment. Other gifts include food supplies or the payment of fees for children from indigent homes.



FIG. 125—Some of the clients of the provincial doctor at Battle River.

Catholic priest. The rates are \$2.50 and \$3.00 per day for rate-payers and non-ratepayers respectively, and a total of 140 patients were admitted in 1929.

This little hospital represents earnest efforts on the part of the community it serves, yet even a brief outline of its equipment indicates how inadequate the facilities are, as compared with those of the modern hospital at Grande Prairie. This type of hospital has also the problem of collecting fees from the rural population. The unpaid hospital bills are excessive. This applies equally to the Red Cross hospital.

Lack of space forbids more than passing mention of the Red Cross hospital at Pouce Coupé. Suffice it to say that its bed capacity is twice that of the Berwyn institution, and it is better equipped.

The Berwyn cottage hospital illustrates the "outpost" type of health centre. The Women's Institute took the initiative in its establishment, by buying and equipping a house at a total cost of \$5,000. The Women's Institute raised 40 per cent. of this sum, while the local community granted the rest. It has a capacity of 6 beds, and has also an operating room with equipment, but lacks an X-ray apparatus. Modern conveniences such as running water, sewage system and electric lights are all lacking; nor has the hospital its own well. The staff consists of two Catholic nurses of the St. Dominique order, trained in Wisconsin about 18-20 years ago, and brought in through the influence of the local

Its cost, about \$7,000, was shared equally by the Alberta Red Cross, the British Columbia Government, and the local community. Salaries of the 4 nurses were at first paid by the Red Cross, but are now paid by the two other agencies.



FIG. 126—The provincial doctor at Battle River "makes her rounds" on horseback during the winter.
FIG. 127—The dog team is another mode of winter travel often used by the Battle River doctor.

The future trends in hospitalization in the Peace River Country are evidently in the direction of municipal ownership and control. In the absence of wealthy local benefactors this appears to be the only way in which the increasing demands for hospital facilities can be met. The lone doctor in the Battle River districts, with many of her patients separated from a hospital of any kind by 80 miles of uncertain roads, said that a small hospital unit was particularly needed in such remote districts.

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Throughout this development these basic institutions have been closely linked together through their personnel, in the use of common buildings, and in the mutual assistance given in their promotion. Likewise they are closely interrelated with the other forms of organization discussed in the next chapter.

CHAPTER X

SOCIAL INSTITUTIONS IN THE PIONEER REGION (Continued)

1. *Other Organizations and Agencies*

THE preceding chapter dealt with churches, schools, and hospitals—three of the more important social institutions in the Peace River area. Much of the neighbourhood life of frontier communities is centred in these organizations, but there is in addition a network of associations which satisfy additional interests. Only fragmentary data are available for many of these groups, yet even the bare mention of their names and chief functions will help to show what social facilities are available within the frontier.

Such associations cannot be divided into mutually exclusive classes, because nearly all satisfy two or more interests. Yet for the sake of clearness they may be grouped as follows: those whose functions are civic or fraternal, those combining social functions with economic, political, or welfare interests, and those which are purely recreational. A brief comment on each type will indicate the sort of organizational pattern which is gradually being woven in the new region. Civic organizations include the town, village, and rural municipal councils which administer local self-government. The matters within the jurisdiction of the first two include public improvements, such as streets, water supply, sanitation, fire prevention, public relief, and similar local problems. Only the oldest rural settlements have been established as self-governing units, namely, Fairview and Berwyn municipalities north of the Peace, and Grande Prairie and Bear Lake municipalities south of the Peace. Their councils deal with construction of roads, control of noxious weeds, and public relief. They also collect taxes for all the above purposes as well as for schools and public hospitals within their boundaries. Other local administrative groups are the school and the hospital boards, and the board of trade. The last mentioned type combines social and local political functions. The majority of its members are business men, but a number of farmers have also joined. These boards of trade are found in practically every village of 100 people or more, and they wield considerable influence over municipal affairs. They are also interested in

matters pertaining to the economic development of the local community. Their power is augmented by the fact that there is a good deal of overlapping membership between them and other associations.

Nearly every Peace River trade centre has one or more fraternal organizations, whose functions are similar to those of mutual benefit associations found elsewhere. Those most commonly found are Orange, Masonic, and Oddfellows' lodges, each of which usually has its subsidiary women's organization. The Elks, another fraternal organization, is active in Grande Prairie and in one or two smaller centres, and concerns itself with welfare work, such as hospitals, relief to needy families, and picnics and Christmas treats for children.

The "interest groups" which combine social and economic interests include a variety of farmers' organizations, such as agricultural societies, pure seed associations, and wheat and livestock pools.¹ Of course, one might equally well include the boards of trade in this class, yet they seem to represent the type of group which acts as "the tax-payer's watch-dog", and are therefore more closely related to municipal affairs.

Social and political interests are combined in the United Farmers' and United Farm Women's Associations,² whose membership is drawn entirely from rural settlements. They hold monthly meetings during the winter, and the programmes include lectures and discussions by local or outside leaders, followed as a rule by an informal social period. These associations are essentially neighbourhood groups, and their activities meant a great deal to the settlers in earlier pioneer days. In recent years, however, the attractions of the villages, together with the advent of good roads and automobiles, have weakened their influence. Politically they lie dormant until election issues galvanize them into action.

The farm women's organizations have functions somewhat similar to those of the Women's Institutes. Both are interested in questions relating to health, current social problems, and local community projects. The provincial Departments of Agriculture and Public Health coöperate with these women's groups by providing lectures and demonstrations on health and household economy. The United Farm Women of Alberta is entirely a rural

¹ These pools are, strictly speaking, economic associations, but at their inception they had something of a social character.

² These two groups are found in the Alberta section of the Peace River area. Farmers' Institutes are their equivalents in the Peace River Block—i.e., the British Columbia section of the area studied.

organization, while the Women's Institute is usually found in village centres. It is interesting to note, however, that of the 17 Institute branches in Peace River Country are centred in rural districts. The United Farm Women of Alberta is definitely a political as well as a socio-educational group, while the Women's Institute is a non-partisan organization. Their efforts in regard to hospitals and local welfare work are their most outstanding contributions to the local community. The Institute branches organized the first hospitals in Fairview and Berwyn, and both



FIG. 128—The Grande Prairie band.

Institute and United Farm Women of Alberta branches have regularly supported the Grande Prairie hospital. These organizations make contributions to schools, school fairs; and to the relief of needy families. They also coöperate with the Provincial Police and with the churches in providing relief in local and outlying districts. The great value of these women's clubs, apart from their material contributions to community welfare, lies in the opportunities for social contacts which they create, especially for women on isolated farmsteads.

If we turn now to the purely recreational clubs in the Peace River Country, we find an almost urban variety of organized sports. Grande Prairie, for example, boasts an athletic association with clubs for baseball, basketball, soccer, tennis, golf, hockey, and curling. Its teams have joined with those of adjacent villages to

form sports leagues whose match games are the high lights in sports day and fair day programmes. Similar intra-regional organizations are found north of the Peace, and in the Peace River Block. Most of the members of these clubs are young people, but married people form the majority in tennis, golf, and curling clubs. Villages with populations of 200-300 people, such as Berwyn and Wembley, commonly have 4 or 5 types of athletic clubs, but in smaller centres the number dwindles to one or two. It is significant that very few athletic organizations are found in rural districts. While a number of rural people play on village teams, the great majority who participate in sports do so as spectators.



FIG. 129—The girl guides and brownies at Peace River town.

The village centres take a great deal of pride in their athletic teams, and the achievements of the latter advertise the "home town" throughout the whole north country. The annual two-day sports in villages of 200-300 people are commonly attended by more than a thousand people, including visitors from all over the frontier. The sports and fair days are so spaced that each of these local celebrations may monopolize the whole regional scene for two whole days, and on these days the people of Battle River on the extreme north mingle with those of Dawson Creek on the west. After this series of gatherings for the several districts during the midsummer period, a decided advance has been made toward regional consensus. The Dawson Creek programme is quite representative of the formal aspect of such celebrations: steer riding, horseback racing for various classes of horses, wrestling on horseback, a chuck wagon

race, a wild-cow milking contest, foot-races for everybody, a sack race, jumping, a cowboy race, a baseball tournament, a basketball tournament, a four-horse chariot race, a wild-horse race, a bucking-horse contest, a packing contest, boxing in barrels and without barrels, association football, motion pictures, music and dancing, more dancing, and more celebration.³

A description of the DeBolt sports day gives evidence of the popular enjoyment of such events:

The first day drew people from the country east of the Smoky River, while the second day drew a large attendance from Grande Prairie as well as east of



FIG. 130—The baseball team, Peace River town.

the Smoky. DeBolt and district were out to extend the hand of welcome and good-fellowship in true pioneer fashion, and every one was made to feel at home the moment he arrived. The great two-day event was the most pretentious ever attempted by the sports committee. The programme would be a large order for a much larger place. During the two days there was a mingling of the modern with the days which are fast passing, when the horse was king. There were long lines of cars, while numerous cowboys dressed for the occasion, rode hither and thither on well-groomed steeds. Here and there throughout the grounds could be seen tents, wagons and saddle-horses. Towards the west of the town the Indians of Sturgeon Lake had pitched their tents.

Each day at one o'clock the participants in the various contests assembled at the drug store and marched to the grounds. The parade was led by the president of the Agricultural Society. Following the president was the DeBolt orchestra, which enlivened the proceedings with snappy music. The staking of "gold claims" proved interesting and netted the committee a good profit.

³ Field notes.

While the "buckers" were not up to expectations (they were too sophisticated) the steers and cows and an old bull turned in performances which more than made up for what the horses lacked. Quite a few of the cattle were in Halcourt Dahl's class, and piled their riders with a regularity which delighted the large crowd. There was one old cow which "had everything from side-stepping to sun-fishing". The head of the herd not only dislodged his rider but also charged him. Fortunately, he escaped without injury. The comic stunts of two clowns on their bucking mule provoked no end of merriment. On each evening a dance was held at the country club hall. The dance was preceded by a boxing bout which was no pink tea affair, and the earnestness of the boxers was heartily applauded. The sports, races, concerts and other features were thoroughly enjoyed.⁴

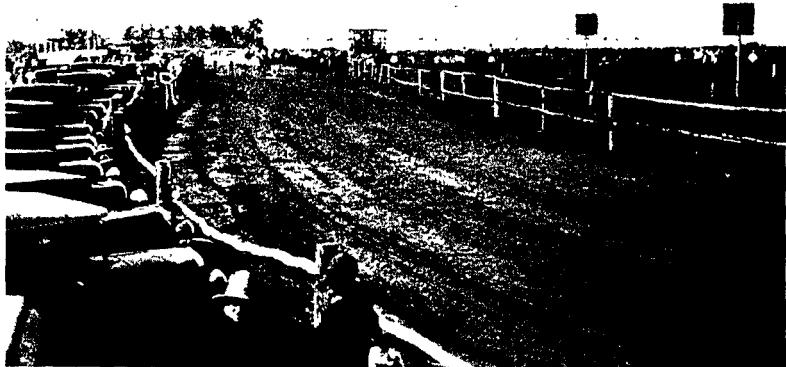


FIG. 131—The Rolla fair and sports day.

The agricultural fair is a combined agricultural exhibit, an exhibit of household conveniences, farm-machinery, and automobiles, a bazaar midway, and sports events. The business which such entertainments attract is an important item to restaurants, hotels and others who cater to the travelling public, and it is not a mere accident, therefore, that hotel-keepers and retail business men are among the most active supporters of athletic organizations.

Dances, card parties, amateur dramatics, and movies provide other recreations in the frontier villages of the north. Grande Prairie has the only "talkie" theatre in the north country, but many of the smaller centres along the main highway have weekly movies, supplied by a travelling showman.

⁴ *Grande Prairie Herald*, July 18, 1930.

In recent years there has been a tendency for rural interest groups to meet in the village centres. This applies to the United Farmers' Association, for example, and the result is the breaking up of older neighbourhood groups. This change tends to increase the amount of social contact between village and rural people, and also helps to link widely separated settlements into a larger community.

The local press also plays its part in integrating the Peace River settlements. A weekly newspaper is published at each of the following: Fairview, Peace River, Grande Prairie, and Pouce



Fig. 132—Judging of livestock at the Rolla fair.

Coupé. These papers circulate both local and outside news, and are influential in moulding public opinion with regard to local issues. The fact that three of them form a chain organization makes for a common policy, and thus increases their influence in local affairs.

2. Social Participation by Peace River Farm Families

The preceding outline of leisure-time groups indicates what social facilities are found in the frontier communities. The fact that they are concentrated mainly in the villages raises the question of how accessible they are to farm families. An approach to this problem was made by analysing the social participation of 313 farm families included in the survey.⁵

⁵ The sample originally included 332 farm families, but 19 schedules lacked complete social data, and they were therefore excluded for this part of the study.

Reference has already been made to the population elements in the sample group and to their home environmental conditions (see Chapters III and VII). By way of summary it may be stated here that these farm families form a young, mobile, and predominantly male group. About 70 per cent. of the households are family units, while the rest are single-male establishments. The population is heterogeneous in ethnic and occupational elements. Yet it is, on the whole, fairly well assimilated to the new-world culture, considering the number who are of Anglo-Saxon origin, those who have been born on this continent, and those who

have both of these factors in their favour in becoming adjusted to a region under British control. Sixty to sixty-five per cent. of the operators and home-makers had completed their elementary school education, and all but the small fraction of two-

thirds of one per cent. had had at least two years' schooling. With these characteristics of the sample farm families in mind, we may turn to the study of their social participation.

The social contacts of the Peace River sample were classified as being either informal or formal. The first group includes the more casual type, involving no regular attendance or membership on the part of persons who make them. They include attendance at parties, picnics, dances, fairs, athletics (as spectators), theatres (movies), and other entertainments. The formal contacts include those made as members of social organizations. The term member is used here to mean a relatively permanent relationship, whether it refers to a loosely-organized Pioneer Club or to the rigid requirements of the Masonic Lodge. The contacts in churches, Sunday Schools, and public schools were omitted, since they have been discussed in former chapters. No attempt was made to measure such informal contacts as visits to relatives, neighbours, or business contacts.



FIG. 133—The mobile movie man advertises continuously.

The records of informal social participation showed that 87.9 per cent. of the 313 families had made some informal contacts through one or more of their members during the survey year. The types of contacts included parties, fairs, picnics, dances, athletic events, movies, dramatics, and similar entertainments. The percentage of families who made a given type of contact varied from 37.8 per cent. to 76.3 per cent. in well-settled areas, as represented by Fairview. In Rolla, the transitional area, the percentages varied from 44.2 per cent. to 78.8 per cent., while in the



FIG. 134—The picnic feast is spread.

fringe areas the proportions varied from 7.5 per cent. to 55.2 per cent. Some suggestion as to the variety of facilities available in a given settlement is given by the proportions of families who had a given type of contact. In Fairview, for example, fairs and theatres ranked highest, having been attended by 76.3 per cent. and 71.1 per cent., respectively, of the sample group. In Rolla, the most popular amusements were parties and fairs, attended by 73.1 per cent., and 78.8 per cent., respectively, of the sample group. Dances and parties appeared to be the most accessible forms of amusements on the fringe, where 55.2 per cent. and 35.8 per cent. of the families sampled, reported participation. The meagreness of opportunity for informal participation on the fringe is also shown by the fact that only 31.3 per cent. of the families sampled here had attended athletic contests, while less than 20

per cent. had been present at picnics, movies, or fairs. The fringe, too, has the largest proportion, i.e., 6 per cent., who reported they had no informal contact during the survey year. There were in addition 13 families, or 19.4 per cent. of the fringe group, who gave no information on this point. It is clear, on the whole, that a much greater variety of informal functions are available to Fairview and Rolla families than to those in the fringe.

Another approach to the study of informal participation was made by comparing the average number of informal social meetings shared by married operators and homemakers. The averages



FIG. 135—At the "beach" near Hythe.

were very similar for the 222 couples studied. They averaged 22.6 and 20.5 such informal contacts in one year for men and women, respectively, for those reporting contacts. The records show that the two sexes participate about equally in these social gatherings, e.g., 25.5 and 22.5 for the Fairview sample, 26.7 and 23.6 for Rolla, and 14.4 and 13.5 in the fringe for men and women, respectively. The amount of informal participation is not so closely dependent on the matter of sex as it is on stages of settlement. In the old areas operators or homemakers attend about one social gathering per fortnight, but in newer areas the average is not much more than once a month.

A comparison was also made between the 222 married operators and 91 single men,⁶ as to their frequency of informal social

⁶ The married men's group included 5 widowers who had housekeepers, and the single men's group included 12 who were either widowers living alone or whose wives had not yet joined them on the farm.

participation. The single men who reported attending social meetings, averaged 5-6 more attendances than married men in Fairview and the fringe, but the reverse held true for the Rolla group.⁷ It is significant to note, however, that in Fairview the proportion of married men attending no social gatherings at all, was lower than in the case of the corresponding single men's groups, i.e., 3.8 per cent. as compared with 20.8 per cent. In the fringe 25 per cent. of both married and single men had no informal social contacts. It appears from these figures, that the proportion of married men attending social gatherings is greater than that for the single men in older areas, where social facilities are readily



FIG. 136—Backing the home team.

accessible. But the number of single men who actually participate in informal social affairs do so more often than the corresponding group of married men.

It is often said that the family rather than the person is the unit of social participation among rural people. In order to test this statement a total group of 182 families with one or more children⁷ at home was studied. The data showed that the proportions making informal social contacts as a family group comprised 57.2 per cent. of the Fairview sample, 69.2 per cent. of the Rolla sample, and 38.3 per cent. of the fringe sample. Leaving out, for the moment, those who gave no information, or who had no social contacts at all, it was found that the number of Fairview and fringe families having individual social contacts only, was almost as high as that for families who participated as a unit. The numbers were 17 and 24 respectively, for Fairview families, and 16 and 18 for fringe families. This was not the case

⁷ Children 6 years old or less were not considered here.

in Rolla, however, where the families participating as a unit were three times as numerous as those participating as individuals only. Those having "family-unit" contacts averaged only 3-8 less than the corresponding averages for operators and homemakers.⁸ It would appear, on the whole, that there are regional, and perhaps,



FIG. 137—Quoits do not require eighteen holes.

FIG. 138—This type of conveyance is far more common than the automobile.

cultural differences in the tendencies of families to participate as groups. The similarity between averages for "family unit" contacts and those for heads of households suggests also that both operators and homemakers participate in social gatherings attended by the family group rather than as individuals. Individual contacts are made then, by their children, and a study of 70 persons, who

⁸ The fact that operators and homemakers include those of childless households would probably make these group averages higher.



FIG. 139—Sunset Prairie community hall, Peace River Block.

participated in social functions without being attended by their parents, shows that all but nine were 16 years old or more, and all but one of the remaining group were 13-15 years old. These persons averaged 33 individual attendances for the whole sample, or 10-12 more than did operators and homemakers. The children's total informal contacts are likely more frequent than these figures indicate, since a number of them probably participate by "family unit" contacts as well.

We must turn now to a study of participation in formal social organizations. Information is summarized for five types of organizations, namely: Farmers' and Farm Women's Associations, Lodges, Ladies' Aids and Auxiliaries, Women's Institutes, and

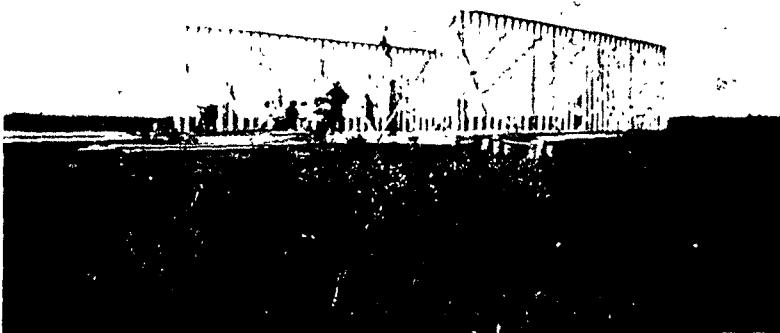


FIG. 140—Building a new community hall in Battle River.

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various other groups represented by only a few people in each case. No differentiation was made between the sexes in summarizing the data for the first two and the last group. The remaining ones refer, of course, only to women. The term "active" refers to persons who had attended at least one formal meeting during the

TABLE LXII—PARTICIPATION IN FORMAL SOCIAL ORGANIZATIONS BY 656 ADULTS IN THE PEACE RIVER AREA*

TYPE OF ORGANIZATION	WHOLE AREA	WELL-SETTLED	TRANSITIONAL	FRINGE
	No. of Persons	No. of Persons	No. of Persons	No. of Persons
Farmers' and Farm Women's Organizations.....	55	47	2	6
Members only	18	15	1	2
Lodges.....	28	28	0	0
Members only	25	15	8	2
Women's Institutes.....	20	16	4	0
Members only	1	1	0	0
Ladies' Aid and Auxiliaries.....	24	22	2	0
Members only	4	2	2	0
Others††.....	56	35	16	5
Members only	38	27	6	5
Total Persons 17 years and over.....	656	415	112	129
Total Persons having formal contacts.....	195	152	31	12
Percentage having formal contacts.....	(per cent.)	(per cent.)	(per cent.)	(per cent.)
	29.7	36.6	27.7	9.3

* Data refers only to persons 17 years or over.

† Lodges include Masonic, Orange, I.O.O.F., with their sister organizations.

†† Others—refer to a variety of groups i.e., War Veterans' Association, Elks, Agricultural Societies, Pioneer Clubs, etc.—whose participants were very few.

year, while those listed as "members only" reported no participation during the year covered by this study. Out of the whole sample of 656 adults 29.7 per cent. had one or more contacts with various social organizations; the remaining 70.3 per cent. had no formal participation at all.

The greatest proportion of members of organizations is found in

older settlements. The percentages dwindle rapidly as one passes to the transitional areas, and in fringe areas the number is insignificant. The relatively large number of people who are "members only" may be due either to indifference or else to lack of social organizations in many rural neighbourhoods.

If we compare the married operators with the homemakers as regards formal social participation we find that 67 men or 30 per cent. of the 222 married men, and 51 women or 22.4 per cent. of the total group reported formal contacts. These 51 women averaged 14 formal contacts during the year, while the 67 men averaged only 8.8 contacts, or 5.1 less than the women. Regional samples indicated that both men and women were most active in the older settlements, particularly in Grande Prairie. Both the number of persons who participated in formal organizations and the frequency of their participation are small in transitional and in fringe areas. The married women, who shared in formal organizations, did so more regularly than the corresponding group of men. This difference is particularly noticeable in older settlements, and appears to be due to the presence of such women's organizations as the Women's Institutes and the Ladies' Aid Societies. A slightly larger proportion of married men participated in formal social organizations than did single men. But there was little difference in the frequency of participation for those men who actually reported such contacts. The above information on social participation of Peace River farm families may be briefly summarized as follows: 87.9 per cent. of the 313 families reported some informal participation during the survey year; 2.8 per cent. reported that they had not participated in any informal gatherings, and 9.3 per cent. gave no information. The average number of attendances for married men and women was very similar, but there were marked differences between old and new settlements with regard to amount of informal participation. The family group tends to be the unit of participation, but grown-up children of farm families make additional individual contacts.

Formal social organizations were attended by only 51 per cent. of the 313 families; such attendances included an average of only one person per family for those who participated. The frequency of formal social contact averaged less than one a month for the 195 men and women who reported such participation. The meagreness of formal social participation on the fringe was even more marked than in the case of informal participation.

The detailed analysis of the means and modes of living of Peace River farm families has already been presented in Chapters VI and VII, but it is desirable to recapitulate the economic conditions which limit their social life. The small amount of money spent by farm families on items other than bare necessities, the housing facilities, and the types of conveniences found in farm homes, help to explain the situation with regard to social participation. The amounts spent on social organization, the item of chief interest here, were \$12.30 per family in Fairview, \$17.78 in Rolla, and \$3.27 in the fringe areas. These figures are in direct relation to the total money spent on cash family living (see Table XL). The figures indicate that a great many of the families sampled, especially in the new areas, have little or no money left over for social participation.

Further indices of these pioneer families' inability to pay for recreational facilities are seen in their housing conditions, and in the meagreness of conveniences found in farm homes.⁹ The fact that only 43 per cent. of the sample owned automobiles also retards social participation, especially in a region where distances to schools and community halls average from 4.5 to 6 miles, and distances to trade centres are still greater.

The amount of reading matter which enters these farm homes compensates to some extent for lack of direct social contact (see Table XLV), but here again the families in the older settlements are in a more favourable position than those on the margins of settlement.

⁹ For details see Tables XLIII and XLIV.

CHAPTER XI

THE SUBJECTIVE SIDE OF THE SETTLEMENT PROCESS

THE development of this frontier region has been disclosed quite impersonally in the preceding chapters. The attitudes of the settlers toward their social and economic fabric have been indicated and partially measured in terms of family expenditures and institutional participation. The use of these measuring rods was complicated by the problem of distances and by the variety of social backgrounds. There remains much concerning the lives of the settlers which is not reducible to quantitative statement. Already this more personal side of the settlement process has come to the reader's attention momentarily, in the candid statements of settlers and in the portrayal of their more spontaneous doings. But this volume would be incomplete indeed if a more extended reference were not made to the inner lives of those who have settled on this new frontier.

1. *The Region as an Object of Public Attention*

While this region has been in the public eye for two decades its glamour has increased in recent years. This situation gave full release to the activities of the "boosters", whether resident in or living outside the north country. The local villager saw rather obvious advantages in the thickening of settlement, and a host of others, across Canada and overseas, saw gain for their country or for themselves in encouraging others to migrate to the Peace River Country. Those who wished to promote immigration to Canada made this region the centre of their appeal. Some of the advantages claimed for this northland were well supported in fact, but other claims were clearly excessive.

Many settlers, stirred by alluring advertising and by the blandishments of the salesman, have entered this new land and are happily settled. Many others stayed for a time and then trekked elsewhere. There are yet others who remain and protest the means used to lure them thither. "They gave me to understand that the railroad would reach the district I chose in two years. That was nearly twenty years ago and it has not arrived yet." Such disappointment is perennial, whether it be a railway or a highway that is

promised. Bumper crops of all kinds were supposed to be produced with ease. "I was told," said one settler, "that it was a wonderful watermelon and strawberry country." Some have found themselves on very poor land and feel that they "have been stung." Others for various reasons wish that they had not left England or New Mexico, southern Saskatchewan, or districts near Edmonton. There are yet others whose wives have refused to enter the region or have refused to stay. Many settlers were drawn to the region by pictures of well-established farmsteads in the older districts of the area, and they were disillusioned by the elemental struggle for existence they have been forced to face on the untamed fringe. The provincial doctor in Battle River has called attention to the possibility of attracting, when needed, those who would relish fringe conditions. This English woman doctor maintained that "there has been too much publicity which tends to produce the impression that everywhere there are wonderful wheat fields, well-equipped houses, completely established settlements, and a highly organized form of civilization. After all, this is not necessary for there are people who want the touch of a more primitive reality. They would come and stay if the facts were accurately presented." There are, without a doubt, many people who wish to free themselves from culture areas which are excessively conventionalized.

2. *The Critical Period for the Settler*

To move away from older communities, away from the close ties of kinsmen and friends, and to establish oneself among sparsely-settled strangers in a new region is a crisis for the migrating family. The first year in particular and those immediately following constitute the critical period for the new settler. Some of the hardships and deprivations suffered during the region's early stages of settlement were touched upon in the second chapter. These have diminished, but they have not vanished from the fringe districts to which the mass of new settlers must proceed today. A brief sketch of the settlement of Sunset Prairie ten years ago makes this quite clear.

Sunset Prairie, in the Peace River Block in British Columbia, is a small parkland area. Part of it is lightly wooded and there are small treeless patches, but the major portion of this district is quite heavily wooded. Ten years ago this district was 135 miles from the railway, and 35 miles from its closest supply centre,

Pouce Coupé. This rather remote fringe was settled about 1920 by returned soldiers who were nearly all English-born. Very few of them had previous farm experience, and there were fewer still who knew how to cope with the kind of difficulties which lay immediately before them. Sunset Prairie was thrown open for soldier settlement, with the proviso that thirty men be found who had at least \$1,000 each. The thirty men were secured, but it is freely admitted that, while some had this amount or more, the same \$1,000 was used by many others, like the baton in a relay race. Their supplies were loaded on their wagons at Grande Prairie and part of their equipment was trailed. This caravan of wagons with mowers and rakes in tow presented an odd spectacle to the older settlers, who recall its snail-like pace with many a chuckle. It took these tenderfoot pioneers thirty-one days to make the journey of one hundred and thirty-five miles. They struck a wet period; rain fell, sometimes all day, on nineteen of the thirty-one days. The roads were but trails punctuated with mud holes. One of the party describes their experiences as follows:

One day was spent crossing the Kiskatinaw River, which was running very high. To navigate it we unloaded the wagons, taking small loads, one at a time, on account of the steep cut-banks on either side. Three days previously, our party lost three horses fording this river; one of these was the community stallion. On this occasion a member of the party nearly lost his life. In trying to cut away the harness from the horses to give them a chance, he was carried down the river, but was fortunately swept to a sand bar. After crossing the Kiskatinaw we were held up for the night in a mud hole. As it was bush country we could not tether our horses, and for lack of feed we had to let them run loose. We woke next morning to find that they had all recrossed the river leaving us with our loads on the other side. We decided to walk the remaining twenty miles to Sunset Prairie to get help from some of the party who had gone ahead. However, we met a trapper who summoned aid and helped us get our horses across. We all learned how to coax a fire on a damp day with wet wood, and obtained much additional knowledge which we came to prize later.

All our efforts during the few months before winter were expended in putting up hay for winter feed. This was available in very small quantities in a bush country. Here and there we found an acre or more. Our first winter was probably the worst this district has known both for length and for snowfall. Winter came on in October, and the snow covered the ground the first week of June with a heavy fall. Although we were assured that this was unique, I do not think that many of us believed it. One settler remarked that this was proof that the Almighty had reserved this country for moose and Indians. The high cost of living in these first years was probably our worst handicap. Sugar in the years following the War went up to 32c. a pound and flour \$13.00 a hundred-weight. The nearest base of supplies was Pouce Coupé, 35 miles distant over an almost impassable trail, and it took four strenuous days to make the return

trip. We always considered that it cost \$10 in actual money to make this journey. In the winter of 1920, in spite of the fact that most of the men were still engaged in erecting their own buildings, they got together to build a community hall, which was one of the first halls to be built in the Peace River Block, Rolla having the other one. This was of inestimable value in the early days of the ~~Sunset~~ Prairie settlement. It was used for divine services once a month, and was also the means of bringing the people together for dances and other forms of entertainment. Rarely was anyone absent from either church service or dance. Refreshments inevitably followed any function. In summer, dances broke up at sunrise and in winter they broke up at seven, in time to do the chores.¹

About one-half of the original settlers have remained in this district. A few of those who left have retained their land. Some



FIG. 141—A settler's family in ~~Sunset~~ Prairie.

of the families were aided by war pensions, others grubbed away with the help of women and children and the aid of some initial capital. Considering the difficulties they have cleared quite an acreage, and have eked out a fair living. In a sense this was a type of group settlement by families with similar traditions; this may account for the fact that so many have remained in this distant fringe district.

Another settler relates how discouragingly small have been the returns for the efforts put forth in his district, which has a heavy covering of poplar over a thin layer of chocolate-coloured loam under which is a lighter-coloured, poorer soil. Fires endanger the humus

¹ Field notes. Information obtained from one of the thirty originals.

in land of this type. There is also the possibility that its fertility may be quickly exhausted in any case. Yet in this particular area, 15 miles from the railway at the present time, fires have been used freely as a means of cheap clearing.

Clearing costs were so high that the district was frequently fired. These fires were attributed to accident. Neighbours looked the other way and had nothing to report when governmental authorities came to enquire as to the source of fires. The humus was burned off in many instances, but the practice was continued. Our district has been settled for 15 years, but we have not accomplished much. Settlers have come and gone like factory shifts. The first shift did nothing but wait; the second shift put in a grubstake and got nothing out; the third shift got quarter sections of cheap land, and now it looks as if



FIG. 142—Abandoned farmstead on "the fringe" north of the Peace River.

they are going to stick. However, the first years were practically wasted. At last we have a school, though there are children in the district 15 years of age who just now are being promoted to sixth grade. We do not have two miles of graded road in the district, and we have to go half-way to town before we reach a graded road. There is a church service twice a month in the new school. While the struggle has been discouraging, we now hope to make more progress.²

The responses of individual settlers to the difficulties confronting them in new districts are varied. The settler may succumb to the stagnant hopelessness which for many years characterized the district just mentioned. He may give up the struggle and leave the region as many have done. He may wait expectantly for the government to do something for him. Some new settlers thought the government should loan them initial capital, should clear the land for them, or furnish them work as a means of obtaining capital.

² Field notes.

The building of roads, telegraph lines, or railways in districts like Rolla and Battle River have given many new settlers a chance to earn needed money. There were those who complained bitterly that "contractors bring in men and horses rather than give every opportunity to the settlers in the area." Many others were working away on their farms without complaint: one English farm hand and his thrifty wife are "happy to be homesteading because



FIG. 143.—An old-timer on the Hines Creek Fringe; a veteran of three wars.

they are free from the domination of bosses, and are gradually building up a real home of their own." There were many instances of evident poverty, but the homesteader and his wife were determined to turn their raw lands into farms. One settler who had been a tenant in one of the older regions migrated to a fringe farm in the Peace River because his wife, an immigrant from Northern Ireland, wanted "a piece of land of their own." She said she liked it and was content in their one-room log house, 26 feet square, with a stove in the centre and the few articles of furniture along the four walls. They were young and strong, had healthy young children, and are typical of those who may hope to tame the frontier. These earlier years have left some settlers broken in body or mentally "soured"—doubtful assets to their

families and to their communities. Yet the majority of settlers look back to those first years not in bitterness but in triumph because they have built a home and found a homeland.

3. Types of Settlers

Once the settler has made the early critical adjustments to frontier conditions, he may proceed more steadily and methodically

with his central objective, the development of his farmstead. For some this is a great obsession; for others, concentration on farming as their main business is not so keen or constant. Peace River farmers, like people elsewhere, vary greatly in their capabilities, and in their farming strategy. Taking them as a whole there are four main classes, the chronic pioneer, the ne'er-do-well, the exploiter, and the builder.

The chronic pioneers are met almost exclusively in transitional and fringe districts. They are farmers, doctors, lawyers, and store-keepers who are perennially adolescent in their community relationships. Their level of satisfactions is fixed in a condition of un-settlement. To them the entry of the railway is a symbol of the constraints of civilization. Their feet itch to tread rough ways once again. One says: "The pleasant, happy, careless days have changed since the railway has brought this district into closer competitive relationship with the outside world. I intend to go to the Fort St. John area." Many farmers are to be found who have trekked toward a new frontier periodically like Chapdelaine in Louis Hemon's *Maria Chapdelaine*. Many a settler has said: "A man only has one homestead in his system." But this statement applies to those who have turned their land into well-developed farmsteads. The acreage tilled by those "with itching feet" is relatively small.

Then there are those who, of their own volition, move little. They are the ne'er-do-wells who are to be found in every region, and the Peace River Country has its share of those who have been cast off by other farm areas and also by other occupations. A field investigator reports:

One would judge that this man has been completely discouraged in another area on account of poor land and drought. He has fled to the cover of a new region, where he hopes to eke out enough from his hunting and farm products to raise his family. A very bright fourteen-year-old girl has been taken from the seventh grade and her educational opportunities have ceased.

S. has not made much progress, considering his initial capital and the length of time he has been in the area. He is not agriculturally inclined; I doubt that he will proceed much faster in the future. His main aim seems to be just to ~~subsist~~ rather than to improve his land. He has some of the best land in the district and a good location for mixed farming.

K. was found alone with his dog in his windowless bachelor cabin, "just thinking". He was thinking that he would be content with a small amount of cleared and broken land. He would not farm extensively like many others in the district. He just wanted enough to keep him going comfortably. His

standards of comfort were decidedly elementary. Until 12 years ago this settler had been a railroader.

Another investigator makes the observation that:

M. is not a good manager. He has overstocked his place with implements on time payment, and there is little prospect that he will ever pay for them. His wife appears to be more businesslike, but her judgment carries no weight, unfortunately.

These ne'er-do-wells range all the way from the amiable "naturals" who do not know or care, to those who care but do not know. At least their chimneys add a few more spirals of smoke in districts none too thickly settled.

In sharp contrast with the foregoing type is the aggressive exploiter who makes his plans to reap more than his physical energy alone can sow. He reveals the cunning which harnesses the efforts of his neighbours to his own advancement.

One settler placed a store on his homestead and hauled his supplies a great distance. He was always on the alert for new chances for his own advancement. When he heard that the telegraph line was to come through his district, he sent his wife to Edmonton to train as an operator. He got the telegraph office installed on his own place, and his wife was placed in charge of it. Later on the post-office was placed in his store, and he got a man to open up a pool-room nearby on his own place.

This man had the push and resourcefulness to turn a great many events to his own advantage; and, for a time, he played a central role in the life of his community. Many of this type had previous business experience, and they organized the commercial enterprises of the villages after they had been homesteaders.

J. is a go-getter who came into the area with a fairly small initial capital, but owing to his enterprise he has placed himself in an advantageous position. His homestead has poor soil, but he picked it mainly as a nucleus around which to build a large establishment. He is close to the sawmill and in the midst of a community of homesteaders, whom he expects to buy out advantageously at the right moment. He has already launched out on a scheme of renting their quarters whereby he receives the first two crops on all newly-broken land. The scheme seems feasible and profitable for J.

Settler N. has just built a new house and painted it attractively, not to enjoy it as a home, but to enhance its selling value. Inside, it is very bare and untidy, but the outside grounds are neat for this stage of improvement. This operator is a shrewd man of business.

Mr. R. is one of the most progressive farmers interviewed. He came in with a debt handicap of more than two thousand dollars, but he has reduced this burden and obtained a foothold on his land through his success with livestock

and his enterprise in taking possession of the small local market. He feeds expertly and markets early to obtain his trade.

Furthermore, there is the veteran who has been physically marred by his experience on the seven seas and in a score of strange lands. He looks upon himself as the mentor of his district, and talks of building a house with a large gymnasium at the back for the boys of the district. He owns the fastest horse in his area and is very proud of it. He is raising racing horses as a hobby and a future source of income. He has a very good layout on the river bank for stock raising. But he is biding his time; at present he is away freighting and trapping during the winter months.

And finally there is the exploiter of the soil who does not love his "good earth" and has no interest in the local community.

~~X~~ believes in farming just six weeks of the year, three in the spring and three in the fall. He has two horses and one cow and he knows how to dispose of them when he and his family go to the coast. He is a power farmer, *par excellence*, who seeks quick returns with a minimum of effort. ~~I shall use the combine without the swather this fall if conditions look good. I would rather starve as a wheat farmer than be a slave to stock.~~ He spends most of the year with his family in Vancouver.³

Lastly, there are the true sons of the soil, the type which Gladys Hasty Carroll has described in *As the Earth Turns*. Simultaneously they are the builders of homes and homelands; they are willing to work and wait, to plan, suffer, endure, and achieve, to help those who also love to till the earth, and to be helped by them in turn; they respect each other's reserves as they do the earth's quiet ways. They know the times and the seasons; they concentrate on cattle, dairy products, flax, barley, wheat, or whatever the situation demands. Without them regional stability would remain a pious hope. Some of these settlers started with little or no capital; others overcame most serious physical handicaps.

G. has spent 18 years on this Peace River farm. He lost one arm and all but two fingers on his good hand, in an industrial accident. Yet he has built up a fine farm with little outside labour. He can handle a tractor or six-horse outfit with any man, and is a slave to work when brushing with an axe. He is well thought of in the community, and is satisfied with the prospects of this new country. He is interested in outside affairs as well as with the events which take place on his own farmstead.

The Y's came on account of Mr. Y's health, and partly because they had experienced successive years of drought in another area. The operator does carpentry for his neighbours in exchange for their farm produce. He and his wife have been school teachers, and are working hard to get a new district formed in their vicinity. Both are energetic workers and are experimenting with cattle, potatoes, and other products. If the operator has fair health they are bound to succeed.

³ Field notes.

Mr. and Mrs. F. have a lovely but inexpensive home on the outskirts of their village. They have one of the finest flower, fruit, and vegetable gardens in the northland. Wheat and milk are their chief cash crops. They are building up an excellent farmstead, are well educated, excel as neighbours, and are trusted leaders in their community.

Mr. X. entered the new-district some years ago with plenty of initial capital, experience, and business acumen. Although a widower he has been a prime mover in setting up the local school. He is one of those rare men, who can do many things successfully. Very early he demonstrated his ability for community leadership, and he has given generously of his time and mind and is well liked by his neighbours. After school matters had reached a state of deadlock, he was able to call a meeting and get a turnout sufficiently large to do the business

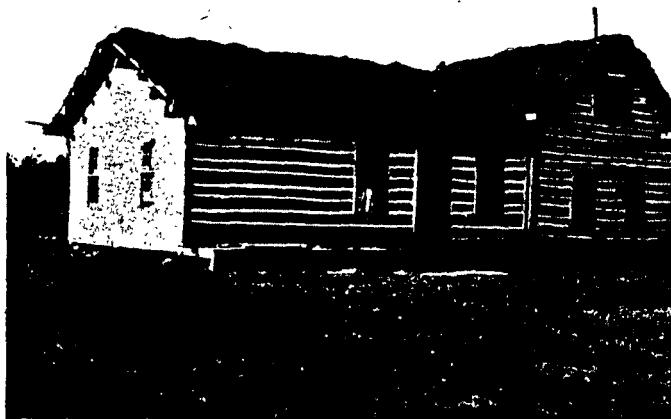


FIG. 144.—An old-timer's home near Beaverlodge.

when no one else could. His family left the pioneer region because of its isolation and because he wanted them to secure the advantages of a higher education. This man knows and loves the land, and is wise in the ways of the men who clear and cultivate it.⁴

The trend in agricultural regions is toward the selection of men and women who know well the ways of the land and of the true husbandmen. Time and circumstance may take some or all of their children to the cities but their places will be taken by those who are truly drawn to a life on the land. Gradually, these husbandmen are coming to possess the Peace River Country.

4. Neighbours and Neighbourliness

The farmer and his family, however, have interests whose satisfaction takes them far beyond their own line fences, out into the

⁴ Field notes.

life of the community which surrounds them. During the early years of settlement, when roads are trails and institutional facilities are undeveloped, life is made bearable through the neighbourliness of the members of the community. Families naturally prefer to live in a neighbourhood composed of members of their own race, for, in a district of mixed ethnic elements, they have one more series of adjustments to make. "The mountain of strangeness is piled high" and the problem of establishing social institutions is indeed difficult.

The Peace River Country has certain districts which are ethnically mixed and where racial prejudices prevail. There are those, in particular, who resent the entry of the region by Slavic groups in larger numbers. "We do not need the bohunks," said many of the old-timers, "we opened up the country and now they come to share what we achieved. They are the ones who call for governmental relief first when the going is rough, and they are the ones from whom it is hard to collect medical and other fees." In justice to them it must be said that many of these Slavic settlers are on the rougher, poorer fringe lands as in the older prairie provinces, from which the majority of them have come. Despite the additional handicap of little capital they are grubbing out homes, and here and there they are modernizing them. They are changing their mode of living, and the younger women are refusing to work in the fields as their mothers have done.

The S. family with ten children lives 6 miles from town, possesses 3 quarter sections and have just filed on 2 new homesteads 7 miles away. During the winter the male members of the family are busy brushing and clearing. While much work is done on Sundays, they do go to church. Some of the younger members attend the Protestant services in the schoolhouse nearby. They have built a good frame house, and have planted a shelter belt. The oldest boy did not get beyond the fourth grade, but the others are going through the various grades, as they have a school close by now. All speak English, and they get on well with their neighbours. They mean to go out into the community much more when they get their new land cleared. They are progressing.

Not far from them is another Slavic family which came in some years ago from Pennsylvania. The operator got tired of being out of work so much in the mines. There are five children in this family. The one daughter is the only one who has not worked out in the fields, a fact which indicates a rising standard of living for this new generation. They have a half section of land, a nice house, and a newly-planted shelter belt. They will soon have a well-developed, thoroughly equipped farmstead free from all encumbrances. In their new car they have covered a lot of territory in a short time. The women claim that there is not enough social life, though they entertain and visit on Sundays. There were fewer parties last winter, and that is the time they feel shut in, unable

to go to the pictures and dances in town. The men get out more often over the bad winter roads. This operator loves his land, and it is difficult to drag him away from it even on Sunday. He says, "there is something about the Peace River Country that makes us like it, but it is hard on me in the winter".

These two cases are examples of the process of assimilation by which, in time, the newer and poorer alien Slavic families will be drawn into closer relationship with their neighbours. The forces which bring this about in rural regions move slowly but they are irresistible.

Apart from ethnic differences there are various types of neighbours. Families may appreciate the presence of bachelors who fill up the vacant spaces and help them thrust back the retreating wilderness, but they would rather be surrounded by other family households because the homes of the latter contribute more to the social life of the neighbourhood than do those of the bachelors. There are, of course, bachelors with excellent homes which are kept clean. The bachelor's shack, however, is not ordinarily attractive to visitors from well-kept homes. There are many bachelors who feel socially isolated and are suspicious of their neighbours. Others seldom leave their places except on business. Some are of foreign birth, a fact which adds to their isolation. Rural families feel that this is no way for a man to live. In some communities it was said that the bachelor "did not pay his way". Mrs. Y asserted that the bachelors in her district has been "cheap skates, who avoided paying their way". They had a tendency to let the married men pay the bills at social entertainments but she shamed them out of it.

Then there are those whose neighbourly sentiments have not become adjusted to the universal tendency for social life to become more formal and selective as a district matures. This condition grates on some of the old-timers, particularly:

Our district was settled one hundred miles from the railway. We began with oxen and now we have tractors. In the early days there were many acts of kindness. My wife was taken suddenly ill, the hospital was far away over a rough trail, and I had no money. My neighbour took \$400 from his strong box and said "take it and go".—The long trip to the Grande Prairie hospital was made in a caboose set on a sleigh: in it there was a bed and a stove. We made the trip all right, and my wife regained her health. If you asked a man in those days for \$15, \$10 or \$20, he gave it to you without question, but times have changed. No longer is there the same friendliness; that is why I am thinking of going farther west again.

Another old-timer, who came in long before the railway and

who has developed a fine farmstead which is now close to a thriving village, remarked:

People now go more often to the village than to each other's homes. Townspeople visit me more often than my neighbours, who seem jealous of my success. The folks about here seem to be sifting into various groups and cliques; this has left me hankering for those earlier, friendlier years. It makes me wonder, too, whether all this hard work I have been through, has been worth while.

However, the coming of maturity, of a more complex social organization, and of a more impersonal social regime is inevitable. Despite the loss of some social values, other features emerge to compensate those who can keep step with the trend toward stability. Where families have settled upon their land, where travelling facilities have come, where the stress of the struggle for existence has eased a little, neighbours share with constancy a more extensive social life.

The B's are a couple past middle age who have no children. They had a hard life when they first arrived, but they are doing well now. They hope to be able to retire to a warmer country some day but they like this country the best of any to date. They are generous and sociable.

The U's have a home, which is a centre of neighbourly activity. "We have a radio and enjoy it thoroughly, can get Winnipeg and all the western cities down through to the States, over to Vancouver and down the Pacific coast with excellent reception in winter time. Neighbours often come over to 'listen-in'. We entertain and are entertained on winter Sundays until this round of neighbourly hospitality is completed. Then there is the bridge club, the Institute meetings, the activities at the hall and church, fair days, and sports days. We have many interests and many friends and are as contented as human beings can expect to be."

5. *The Response to the Presence or Absence of Social Institutions*

Institutional devices evolve to implement as well as facilitate the informal contacts of neighbours. Meagre institutional resources, as just pointed out, are indicative of a low standard of living and of the instability of settlement. Families from areas long settled become habituated to the typical functions performed by the church, the school, the hospital, and the organizations which vouchsafe a wide variety of social amenities, and they are restless until these organizations again become accessible to them. Furthermore, they seek them in a form which commends itself to their life in the new region. They are willing to dispense with "frills" but are unwilling to endure long, if denied the more important organizational facilities.

Religion, or an emotional substitute for it, has become an integral part of life in every region, but without organization its expression is erratic and discontinuous. It has been observed already that religious organization in the Peace River Country diminishes or fades out entirely as the fringe is approached. Missionaries, many of them immature "students", may, at intervals, hold services in new districts for persons who have once enjoyed better things. Even these irregular services may come so late that religious interest has cooled. There were those who maintained "that the church had left them to themselves during their early struggles, and that its late appearance finds them lukewarm". Some observers who have a wide acquaintance in the region declared "that not 2 per cent. of the people in this area care a fig for the church". The figures for the sample families indicate that this statement is inaccurate. Here as in other regions there are a great many persons who have little direct interest in any phase of church organization, even though they may benefit indirectly from its presence in their vicinity.

There are many who welcome the church, not so much for its ritual and its sermons, as for a meeting place at which they may for the time being escape enforced isolation and home routine. For many, too, the presence of the church in their district is a symbol of security and respectability. Most districts, moreover, have a small group of men and women on whose support the church can depend through all sorts of religious weather. They are the missionary's chief aids in his efforts to reach the multitude. Even these people sometimes find it hard to combine religious devoutness and neighbourliness when "local folks come from different races, languages and sects. Somehow I cannot get used to living amid so much that is strange. I guess I am too old to transplant."

The members of Protestant groups, at least in the Peace River Country, want their minister to be morally and spiritually superior to them, but they desire that his social and financial status be closely akin to their own. The presentation of a modern church, a manse, and a minister, without initial cost to a new district, brought forth the feeling that the "minister was not sharing the district's early stages of development, because he lived in a much better house and had a stipend far beyond that of his parishioners." "The first church should be a log or small frame church, put up by the local community, so that the burden of ministerial support might be laid on the local community more quickly than it now is."

In most districts the church is not the only great channel for the expression of human idealization. Farmers' movements, like the United Farmers of Alberta, have in the past exhibited an almost sectarian zeal in seeking their economic, political, and social objectives. These movements, along with secret societies, and organizations like the Women's Institute, have drawn people together with an enthusiasm for sacred aims in a secular world.

The presence or absence of the school in any part of the Peace River Country is quickly noted. Most people—even those who do not have it imposed upon them by political authority—think of it as a necessity. Though much of the administration of the school is centralized in the Department of Education, the local people share responsibility with the Department in forming the district, locating and building the school, and in its operation. That this local democracy will work smoothly and effectively can scarcely be expected when one considers the variety of elements which constitute it. Some of the bitterest factional quarrels have been over school matters, in the more isolated areas where the interests are so few that emotional repression finds vent in the school meeting. Neighbours make violent personal attacks on each other's character, and this enmity may be long continued. The school inspector is often called in to deal with these disturbing situations. Where difficulties make it impossible for the local authorities to administer the school, the Department of Education places the administration of the school completely in the hands of the inspector. This rather serious step the Department takes with much hesitancy, for it is hard to avoid taking sides, and it lays additional burdens on an inspector who already is engaged in a dual capacity of helping to organize schools in new districts and of inspecting the work being done in all schools in his wide territory. Many a school situation is aggravated by the fact that his work or difficulties of travelling delay his arrival on the scene. Then his task as inspector of the actual educational process suffers severely, because the constant organization of new districts demands the greater portion of his time and energy. It must be remembered, too, that the educational services have been extended throughout the new region more quickly and completely than any other institutional services. With such a host of small far-flung school units, education is an expensive affair. Naturally the Department can afford only a limited number of inspectors, and subsidies to frontier schools are necessarily moderate. If land settlement

schemes include the policy of permitting a scattered settlement of the fringe, all institutional services must, in consequence, be both meagre and costly.

The medical services, coming as they do so closely to the lives of young and old, have been mentioned frequently throughout this volume. The fears and anxieties in the minds of persons far away from nurse, doctor, and hospital, are much in evidence, because the modern pioneer has come from communities in which medical and dental services were as obvious as life itself. Furthermore, the inaccessibility of medical services in fringe districts causes a lowering of hygienic standards. Women neglect physical troubles which permanently impair their health and efficiency: "It is too far to go and costs too much; I will keep going the best I can." Some of the doctors have noticed "more nervous troubles and persons worried about themselves twelve to twenty miles out from the towns." Disfiguring accidents are often treated with indifference: a cut left one settler's eye askew; in answer to why he neglected it, he remarked "it does not make much difference out here." When hospitals came to the older districts of the region, many from the newer districts avoided them: "people die who go there." Many did because they neglected going until too late. Similarly there is a very obvious neglect of their teeth by both children and adults. Nowhere are the inequalities in the distribution of medical services more apparent than on the fringe.

It was very clear, in the analysis of social organization in the preceding chapter, that, while the older districts settled twenty years ago have a variety of organizational activities, these fade out, for the most part, as the new districts are approached. This condition often holds for many years. Even the frontier dances, in their routine sameness, fail in time to relieve the deadly monotony of the elemental struggle for existence. "There is no place to go." "It is years since I have seen anything different." The would-be reformers think "the car is essential—especially for women. It is a utility, and it also makes possible a change of scene." But in this volume it has become quite apparent that only a small minority of settlers are in a position to own and operate cars. There are difficulties in the settlement of new regions which the simple-minded do not appreciate. The burdens of the process of settlement fall heavily on women in particular.

Frontier conditions sometimes necessitate the use of the woman in a division of labour which has not been the custom in the previous

abode. This is illustrated by the following account by a new homesteader:

After using up all my liquid initial capital a few months after coming in here, I found that I had to get some cash with which to carry on. I went to town in order to get work, but I found that I could get work for my wife so I went back for her. She is now working in a Chinese restaurant at \$5.00 per week.

This is one way in which the wife contributes to the means of living of the household. The usual way in which she makes her contribution, outside of the regular duties in the house, is by looking after the homestead while her husband is out in the older areas supplementing the income by his wages. This is a very common practice in the fringe, where the operator so often must leave his holding during the first few years. Pushing back the wilderness is a sombre business, however high the settler's hopes may be at the outset. One field investigator wrote in his diary:

After twenty minutes' ride on horseback through bush country, I came suddenly upon a very neat little log shack, in front of which a neatly dressed young woman was swinging her two-year-old baby. She was happy, and told me that she came to this country of opportunity early in the spring, and that she and her husband had high hopes for the future. "We wanted a place of our very own and now we have it." They had started with an initial capital of twelve hundred dollars, had built their log house and broken 15 acres of land. She was most optimistic about their future, proud of their young baby and the newly-planted garden. She said that everyone told her that the railroad would soon be coming through, and that it would not be long until the whole country was settled and that their own homestead would be but one of many well-developed farms. She was full of enthusiasm for the life of the community, and although contacts were very few she had been able to form a ladies' club which met in various homes every two weeks for "acquaintance and sociability."

The next home I visited was indicative of the sombreness in outlook which a few years may bring to the most hopeful settler. I was met at the door by a youngish woman about six years older than the homemaker described above. As the door opened two heads peered from behind their mother's rather soiled and torn skirt. Though somewhat slovenly in appearance she seemed unashamed. A two-year-old baby crawled along a none too clean floor. In one end of this one-roomed log house were two beds left unmade. The cries of the children were punctuated by the scoldings of their mother. She, too, spoke of their high hopes seven years ago, when she and her husband began homestead life as newly-weds. Now they had used up all their initial capital, had little land broken, and much of their crop each year was drowned out by an overflowing creek. "If things keep on this way I do not know what we will do. I don't do anything but visit neighbours once in a while. We are too busy with the struggle to make a living, and the children keep you at home. There is church service at the school three miles away, but we have left the farm only once to go there in the past twelve months!"

To let this chapter close under the shadow of disillusionment would leave the story only half told. Nevertheless, this is a part of the story which has often been neglected, partly because deprivations are so often suffered in silence. That men and women fail and are weeded out in the rigorous selection of the settlement process is all too evident. It is equally true that others endure and triumph, and are happy in a quiet way, even though pioneering has left its mark upon them. At last they have come to think of this new region as their homeland, and they desire no other.

The fact is, however, that many fail and that most families experience for years a meagre standard of living because of their own unsuitability as settlers, their lack of initial capital, the undeveloped means of transportation and communication, the poorness of the land, the sparse population, or meagre social organization. One, or all of these circumstances in combination may make the process of settlement long drawn out and severe. This situation forces to the front the question, which doubtless is already in the reader's mind: Are certain of the settlement hazards unnecessary, and may they be avoided or greatly reduced by a more comprehensive land settlement policy? The answer to this question will take the form of some tentative suggestions in conclusion.

CHAPTER XII

CONCLUSION

THE nature of the settlement process in the Peace River Country has been discussed in the foregoing chapters of this monograph. Conclusions, if they are to be drawn, should arise directly from the data assembled. The author has endeavoured to place the reader in a position to draw his own conclusions, and to establish a vantage point from which he may seek additional information where it seems to be required in making decisions. Nevertheless, there are certain conclusions which seem to be inescapable and which cannot be passed over.

There is much more land to be settled in the Peace River Country. Only a portion of the estimated potential agricultural land is now occupied, and it is inevitable that our surplus agricultural population will seek to occupy the land which remains. This land varies greatly in fertility and in the facility with which it may be cleared and broken; in accessibility to water, in the need for drainage, in the proportion of rough land, and in the frost-hazards there are also great differences.¹ The Province of Alberta has begun to send its soil surveyors ahead of active land settlement. It would thus appear that by an extension of this policy the settler of the future would have some adequate knowledge of the nature of the land on which he proposes to settle. Thus, one of the big hazards in land settlement will have yielded to the application of scientific knowledge.

However excellent aids to intelligent settlement soil surveys may become, they are not enough. Transportation and market facilities demand further attention. We have seen that the agricultural output is small until transportation services, mainly the railway, have come close to the farmer. In the older settlements of the Prairie Provinces there are few farms more than 10 miles from the railway.² Productivity fades before the twentieth mile from the railway is reached; beyond that it declines with great rapidity. It is reasonable to expect that, in the future,

¹ For a detailed statement see F. A. Wyatt and O. R. Younge, *Preliminary Soil Survey Adjacent to the Peace River, Alberta* (Edmonton: Research Council of Alberta, Report No. 23, 1930).

On potential agricultural land, see also Volume I in this Series.

² See in this series Volume I, Chapter 3.

transportation services may precede or be extended simultaneously with the throwing open of a new district for settlement. This would make raw agricultural land sufficiently valuable to be bought rather than homesteaded, and might well result in the immediate selection of settlers of a type likely to become permanent.

The settlement of the Peace River Country has pushed far beyond the railway, or even dirt highways. Some settlers will likely have to eke out an existence without adequate transportation for many years to come. While the shipping facilities of the older districts are quite good, the freight rates are, by special arrangement, maintained at a level which gives these districts transportation advantages which approximate those enjoyed by farmers in the region adjoining Edmonton. This subsidization of rates must be paid by someone, even if it is not paid by the actual shipper. Such subsidized rates cannot be regarded as permanent. But it is fairly evident that the dropping of this present special rate agreement would be a serious matter for those now close to the railway, to say nothing of those thousands of settlers who have to pay 15 to 25c. per bushel for haulage in addition to the freight rate on the railway.

It seems fairly obvious that the settlers of the future must have more initial capital than the majority of recent settlers in this area have had. The mechanization of agriculture is reducing the local opportunity for acquiring capital outside the settler's farm. Then, too, the great era of railway building in the west has passed. Only in a limited way can the building of highways, telegraph and telephone lines, and other public utilities provide the new settler with comparable wage-earning opportunities. The man who makes real progress as a farmer is the one who is able to devote all his energies to the development and operation of his own farm. His continued residence on the land results in obvious gains to his own family and to the local social institutions. There are exceptions, but not many were found in the Peace River Country. It would seem most likely that settlers, equipped for continuous agricultural effort, would be forthcoming when the land, the transportation, and a market for agricultural products combine to give the pioneer a reasonable chance of success.

It may even be suspected that these future settlers may not be immigrants, but drawn from the surplus population of the older agricultural districts in Canada. If these people have sufficient initial capital, an adequate agricultural experience, and a temper

for farm life, then the districts in which they settle will pass rapidly through the early stages of development. Already these native-born migrants are drifting into the area, some with, and many without, adequate capital. The latter might well have been advised to wait, for some of them were destitute during their first year in the region, and had to be given food and clothing. If they are to have even a bare minimum of life's amenities, settlers require a variety of institutional services, such as those provided by schools, churches, hospitals, clubs, societies, and recreational facilities. We have seen something of the deprivations which settlers experience in respect to these things in the new districts with a scattered population. Governments, churches, and other organizations have attempted to subsidize them. This is a costly business, doubly expensive when the actual services have to be spread so thinly in the more remote districts. A population of low density, isolated by lack of transportation facilities has to endure social and economic disadvantages for many years. This situation suggests that those lands which are considerable distances from the railway (or other adequate means of transportation) be withheld from settlement. It further suggests that means be sought to settle the suitable land in entire districts at one time, and that the units selected should be sufficiently large to allow for rapid development of local social organizations, as well as of the more specialized services which require a relatively large constituency.

The present study, like others of similar type, reveals the tendency for the more specialized services to be centralized in a constellation of villages, towns, and cities. This affords a clue to those who would promote stable settlement. If such natural trends are to be ignored, the settlement process had better be left to work itself out as at present. Nevertheless, it is possible, if desired, to make plans for settlement conform to the natural trends ascertainable by scientific inquiry into the basis and processes of settlement. Should these be followed it seems likely that permanent settlers, supporting their own institutions in a very short time, may be placed on the land with a minimum of waste in human resources and with a minimum of subsidization. Such a possibility would allow governments and private organizations to spend more wisely and more effectively the funds entrusted to them. The development of the attitude of dependency would, one hopes, be less likely to accrue than with the present methods of land settlement and institutional development. It is to be

expected that those responsible for land settlement will employ the services of specialists, many of whom may perhaps be thought impractical because they see too far ahead. The politician will no doubt discover a balance of the near and the far which may be popular because it is in keeping with the increasing intelligence of his constituency. An alternative to the past policy of crude experimentation in land settlement is not easy. A plan in keeping with natural tendencies would have to be thought out with great care and its more important probable effects anticipated.

One may go so far as to suggest that, under the present economic system at least, the withholding of land for settlement until the time is opportune, the planning of transportation facilities, the assembling of accurate information to guide the settler, together with ready coöperation with other bodies interested in the development of new areas, would appear to be among the major responsibilities of the provincial governments. It goes without saying that governmental authorities are expected to protect the settler from the exploitation of special interests who would promote land settlement for private gain and without thought of public good. The effects are far too significant to allow the free play of such interests. Governments will want to be assured that the programmes of private bodies are compatible with public welfare.

The clearing and breaking of the land (except under very unusual circumstances) and the construction of farm buildings may well be left to the settler who can perform these functions far more economically in the long run. While banking perhaps needs to be adjusted more closely to the studied needs of rural people, money should be loaned here as elsewhere with discrimination. Nor does it seem wise that the lender should go out of his way to be a propagandist for any particular phase of agriculture.

The aim of this volume has been to give an accurate account of the settlement process as it has worked out in the Peace River Country to date. The author's only interest in administrative programmes is that they may come to be founded on scientific knowledge. It is his hope that in this volume there has been assembled a body of information which may be of some practical usefulness to those interested in settlement and settlers. Finally it is his hope that this study may serve well the interests of the pioneer settler. On the shoulders of the pioneer the burdens of national development have rested heavily in the past. What he has achieved despite great hazards and many mistakes arouses our admiration.

APPENDIX A

EXPLANATORY NOTES RE SUMMARIZATION OF FARM SCHEDULE DATA*

I. INCOME

a. Farm Receipts

Crop Sales—all sales made during the year ending April 30, 1930, regardless of the year in which the grain was produced.

—Where the landlord received a share of the crop, that amount was included in the crop sales (see "Cash Rent" in Farm Expenses).

Stock Sales—all sales except where they meant a reduction in the inventory of capital such as the sale of bulls, cows, boars, and sows, as well as work horses where they were sold by any farmer except a horse-dealer.

Other Farm Produce

Equipment Sales—are not included in the farm receipts, but are classified as "reduction in inventory" and thus subtracted from the cash investment (see cash investment).

Custom Field-Work—total charge entered here—accounts receivable on the year's work are classified as loans made to the debtors, and thus are included as cash investment.

Threshing

Trucking

Feed Grinding

Use of Pasture

Breeding Fees

Hail Insurance

Treated in the same way as custom field-work.

Fire Insurance—is not included as an income item but considered as a reduction in inventory, and therefore is subtracted from the cash investment (see cash investment).

b. Other Receipts

Income from all investments outside the farm.

Income from labour outside the farm if contributed to the family income (e.g., by the operator, son, daughter, etc.).

Legacies, gifts, prize-money, musicians' fees, etc.

II. FARM EXPENSE†

Paid Labour—includes maid during harvest, etc.

Hired Field-Work

* Prepared by Professor R. W. Murchie.

† All items of farm expenses and income-producing expenses have been entered as though they were paid in full, e.g., taxes are entered to the full amount for the year even when the whole or any part of them are still unpaid.

II. FARM EXPENSE—Continued.

Cash Rent—All farms, where the rental share basis was used, were calculated in terms of the cash equivalent. In order to accomplish this it was necessary to subtract from the amount which was paid to landlord, the amount which he had supplied in seed, twine, threshing bill, etc. All grain which the landlord received as payment was first entered as though sold by the farmer, and thus tabulated as cash receipts.

Cleaning Seed

Seed Purchased

Formalin

Feed Purchased

Feed Grinding

Equipment Repairs

Binder Twine

Tractor Costs

Board of Crew

Separator Costs

Automobile, Farm Use, and Truck Costs

Other Gas and Oil

Blacksmith

Building Repairs—(including repairs to house).

Paint and Painting—(including that for house).

Fencing

Pasturing Stock

Small Hardware

Breeding Fees

Hail Insurance

Fire Insurance—(including that for house).

Taxes on Real Estate, Owned

Taxes on Real Estate, Rented—added to cash rent if paid by the operator (tenant).

Telephone—(farm use only).

Veterinary, etc.

Salt, etc.

Sprays, etc.

Livestock Purchased—for short term turnover, e.g., feeder steers or hogs.

Business Trips

III. CASH FAMILY LIVING

Groceries

Fruits and Vegetables

Meats

Produce Purchased

Clothing

New Furnishings—if a very large amount such as might be spent in newly furnishing a house, then it was transferred to investment expenditure.

Fuel—if bought.

Total cost for one year regardless of whether cash or credit.

*Light**Household Supplies*

Maid—where hired for the family alone; includes cost of board.

Telephone (part)—apportioned by farmer.

Automobile (part)—apportioned by farmer.

*Health**Vacation Trips**Personal**Social**Church and Charity*

Education—includes the total cost of those children who may be living away from home and going to school, if they are being supported by the farm. Books, periodicals, newspapers, etc. School taxes are entered in Farm Expense.

IV. FARM CONTRIBUTIONS—(Not included in total cash expenditure).

Rent—Ten per cent. of the value of the house is charged here as rent.

Food—supplied by the farm—meat, vegetables, fruit, etc.

Fuel—supplied by the farm.

V. INVESTMENT EXPENDITURE (Cash Investment plus Interest).

The method used to show the provision for the future in savings by each farm operator is based on the cash expenditure for investment goods.

Cash investment as opposed to cash family living and cash farm expenses is in reality saving, while the last two are consumed by the farm or by the household within the year. It is not possible to take merely the cash which is spent on the items of machinery, land, life insurance, etc., and use that as the basis of calculation. If that were done a discrepancy would inevitably arise, because some of the cash expenditures on those items are nothing more than mere transfer of capital from one type of property or investment to another. Such a discrepancy would cause the final cash investment figure to be too high by the amount of the transfer. To illustrate: an operator might sell his car, collecting on it, say \$500. He may then go to a machinery company and buy a second-hand tractor for that same amount. In reality he has not added anything to the total amount of his investment, but if the cash basis was used without taking into consideration the transferred amount (the sale of the car for the purchase of the tractor) it would show that he had added \$500 to his investment, and had increased his cash receipts by the same amount, which is not a true representation of the facts.

A description of the method of eliminating this transfer item from the amount which actually went out for new capital goods follows:

In the first step the following items were summarized into a total, in so far as there was cash paid on them:

New Buildings—(plus large additions to buildings which can be considered as capital increase).

New Equipment—machinery, tools, etc.

Livestock—with the exception of the amount spent on buying short-term feeder stock which was entered as a farm expense.

V. INVESTMENT EXPENDITURE—Continued:

Land Purchased

Life Insurance Premium Paid

Bank Savings—accumulated during the year.

Debts—paid during the year. By paying off accumulated debts of previous years, the farmer increases his net worth over the preceding year, thus making a saving for the future.

Loans—made during the year to others.

Accounts Receivable—custom work, livestock sold, etc.

Since the operator was put to an expense to do the custom work or had to reduce his inventory to deliver the animal, then to the extent that he is still owed money on them, he is carrying the debtor. From that point of view the accounts receivable are nothing more nor less than loans, and, therefore, in the investment category.

Other Investments outside the farm—wheat options, bond purchases, losses paid for in cash, etc.

In the second step, the items of reduction of inventory and investment (listed in the following paragraph) were totalled and subtracted from the above total in order to give the final figure of cash investment. Naturally, there were many instances in which the total inventory or investment was decreased, and the investment expenditure as calculated in this way, is a minus quantity. Where this was the case, the investment expenditure, or cash investment, is taken as zero, since the farmer makes no actual expenditure in investment goods as a whole. It might be argued that the minus quantity should be included in the table as such, in order that the picture for the whole community would show exactly how much was the actual saving during the year. In other words, it would show a certain number of farmers having reduced the equity in their investment, while others had increased it. If the plus and minus investment expenditures were both taken into consideration in making up the averages for the districts, it would then show the total increase or decrease. However, by using the algebraic sum as the basis of calculation of averages, a fallacy arises, in that the minus quantity is really a reduction in inventory or investment, which money is used on the actual consumption goods (cash family living and cash farm expenses). Therefore, if the minus quantities (negative investment, or reduction in inventory) are included in the average investment expenditure for districts or groups, and then this cash investment item is added to cash family living and farm expense to make the total cash expense, there will be a duplication or rather a negative duplication. In other words, the total cash expenses will be less than the total of the two items of cash family living and farm expenses by the amount of the reduction in inventory or investment. To illustrate: let us suppose that there is one farmer who spends \$500 on each of the cash family living and the farm operating expenses. Let us suppose also that he has a minus investment of \$500, in other words, that he reduces the equity in his investment by selling off some of his capital goods, such as livestock or machinery to the extent of \$500 more than he spent on those items. He has done this in order to be able to pay his grocery bill, taxes or some other such operating expense. Now if we consider the total cash expense of the farmer, we

find that it only amounts to \$500 (\$500 cash family living plus \$500 farm expense plus the minus quantity of \$500 equals \$500). Here, then, is the negative duplication; the correct figure should be \$1,000 for total cash expenditure, which is found by adding the three major items together with the investment expenditure as zero. The latter method, i.e., that of taking the investment expenditure as zero wherever it is a minus quantity, has been followed in the analysis of the records. However, the minus quantity must be shown in its proper place. That is taken care of in another table which shows "where the money comes from" for total cash expenditure. In Table XII is shown a summary of the amount by which farmers reduced their equity in their inventory investment.

The various items of reduction of inventory and of reduction of equity in investment are:

<i>Stock Sales</i> —work horses and breeding stock only.	Cash collected during the year only.
<i>Equipment Sales</i>	
<i>Land Sales</i>	
<i>Reduction in Bank Balance</i>	Cash collected during the year only.
<i>Sale of Bonds, Real Estate, and other Capital Reductions in Outside Investments</i>	
<i>Loans</i> —taken on mortgage, life insurance policy, from the bank or from private sources.	Cash collected during the year only.
<i>Loans Collected</i> —debts paid to operator.	

VI. ADULT-UNIT BASIS OF COMPARISON

By reference to the clothing expenditures, which were the only ones itemized for all individuals in the family, it was found that the average for those individuals 16 years of age and under was almost exactly one-half of that for those over that age. This suggested the arbitrary basis for the classification which has been utilized in adult-unit averages. One adult-unit equivalent is defined as the expenditure which is made for any family living item by a person 17 years of age or over who resided in the household for the twelve months period. If the person was in the household for a shorter period, for instance for six months, the expenditures of that person would be one-half of one adult-unit. For those under 17 years of age, resident for the twelve months period, the expenditure would be one-half of one adult-unit, and for shorter periods accordingly. In calculating the adult-units, the family only was used. If there were hired men in the household they were not included as adult units, since they participated only in the food expenditures. This item is not a significant one in the Peace River study. This is, of course, a very arbitrary system, but it seems to be sufficiently accurate to present the information much more clearly than if the family or single person basis were used alone.

VII. SURVEY YEAR

For purposes of this study, the financial year as applied to the farm families in the sample runs from May 1, 1929 to April 30, 1930. All items of income and expense, as well as the term "adult unit", all refer to the survey year as defined here.

APPENDIX B

SUPPLEMENTARY TABLES

TABLE I—HISTORY OF CROP CONDITIONS IN PEACE RIVER DISTRICTS*

YEAR	GRANDE PRAIRIE	POUCE COUPE	FT. ST. JOHN	SPIRIT RIVER	FAIRVIEW	WHITELAW	GRIMSHAW
1916....	Poor	—	—	Poor	Poor, frost	Poor to fair	Poor, frosted
1917....	Fair	—	—	Good	Fair	Fair	Good
1918....	Poor (July frost)	—	—	Poor, July frosts in places	Fair, July frost	Poor, frost	Fair, badly frosted
1919....	Fair	Fair	Excellent	Fair	Fair	Fair to good	Excellent
1920....	Good	Fair	Good	Good	Good	Good	Light
1921....	Good	Good	Good	Fair	Fair	Good	Best on record
1922....	Poor	Fair	Poor	Poor	Fair, dry	Poor, frost	Fair
1923....	Good	Excellent	Good	Excellent	Fair	Fair, frost	Poor
1924....	Poor	Fair	Fair	Fair	Good	Good	Fair
1925....	Fair	Poor	Poor	Fair	Fair	Poor to fair	Poor, late harvest
1926....	Excellent	Poor	Poor	Excellent	Poor	Poor to fair	Poor to fair
1927....	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent
1928....	Fair	Fair	Good	Good	Fair	Good	Good
1929....	Good	Good	Good	Good	Fair	Good	Good
1930....	Good	Good	Good	Excellent	Excellent	Fair to good	Good
1931....	Fair	Fair	Excellent	Good	Fair	Fair	Fair
1932....	Poor to fair	Fair	Poor	Fair	Fair	Poor to fair	Fair

* Data supplied by Mr. W. D. Albright, Superintendent of the Dominion Experimental Farm, Beaverlodge, Alberta.

APPENDIX B

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TABLE II—AGE AND SEX GROUPINGS FOR 332 PEACE RIVER SAMPLE FAMILIES*

AGE-GROUPS	MALES (no.)	FEMALES (no.)	MALES (per cent.)	FEMALES (per cent.)
65 and over.....	35	16	3.0	1.4
60 - 64.....	23	7	2.0	0.6
55 - 59.....	19	14	1.7	1.2
50 - 54.....	26	14	2.3	1.2
45 - 49.....	55	16	4.8	1.4
40 - 44.....	68	33	5.9	2.9
35 - 39.....	59	38	5.1	3.3
30 - 34.....	49	53	4.3	4.6
25 - 29.....	33	31	2.9	2.7
20 - 24.....	35	32	3.1	2.8
15 - 19.....	46	36	4.0	3.2
10 - 14.....	51	62	4.5	5.4
5 - 9.....	76	70	6.6	6.1
0 - 4.....	82	67	7.1	5.9
TOTAL.....	657	489	57.3	42.7

* See Figure 35.

TABLE III—PREVIOUS OCCUPATIONAL PURSUITS OF 313 PEACE RIVER FARM OPERATORS

SEMI-AGRICULTURAL: 14

Rancher.....	4	Irrigation-worker.....	1
Cowboy.....	4	Trapper.....	5

PROFESSIONAL: 20

Teacher.....	8	Lawyer.....	1
Clergyman.....	1	Surveyor.....	3
Engineer.....	6	Army officer.....	1

BUSINESS PROPRIETORS: 28

Butcher.....	2	Stockbuyer.....	1
Department store owner.....	1	Storekeeper.....	16
Hotel proprietor.....	6	Wholesaler.....	1
Grain buyer.....	1		

TABLE III—PREVIOUS OCCUPATIONAL PURSUITS OF 313 PEACE RIVER FARM OPERATORS—(Continued)

HIGHLY SKILLED ARTISANS OF STABLE OCCUPATIONS: 48

Blacksmith.....	9	Moulder.....	1
Carpenter.....	12	Plumber.....	1
Draughtsmen.....	1	Steam ploughman.....	1
Fisherman.....	3	Sawyer.....	1
Glass-blower.....	1	Tailor.....	2
Mechanic.....	16		

CLERKS, OFFICE WORKERS, PERSONAL AND CIVIL SERVICES, ETC.: 114

Army (overseas).....	48	Post office employee.....	1
Bank.....	1	Police.....	4
Barber.....	2	Railway employee.....	32
Bartender.....	1	Real estate agent.....	1
Cook.....	1	Steward.....	1
Hardware clerk.....	1	Salesman.....	4
Hudson's Bay Co. employee..	1	Street car conductor.....	1
Footman.....	1	Taxi driver.....	1
Insurance.....	1	Warehouseman.....	2
Office work.....	10		

SEMI-SKILLED ARTISANS OF UNSTABLE OCCUPATIONS: 110

Abattoir.....	1	Linesman.....	2
Baler.....	1	Livery stable employee.....	2
Bottler.....	1	Miner.....	23
Bricklayer.....	1	Millworker.....	5
Bridgeworker.....	1	Munitions worker.....	2
Construction.....	4	Oilfields worker.....	2
Creamery employee.....	1	Riverman.....	1
Dredging employee.....	1	Sailor.....	6
Factory worker.....	5	Steelworker.....	2
Foundry worker.....	2	Smelter employee.....	1
Gardener.....	1	Stable boss.....	1
Grain elevator employee.....	3	Van driver.....	1
Jockey.....	1	Fur trader.....	2
Lumberman.....	35	Freighter.....	2

UNSKILLED: 45

Ordinary unskilled.....	43	Hobo.....	2
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TABLE IV—AMOUNT OF IMPROVED LAND BY DISTRICTS—PEACE RIVER, 1930

ACRES IMPROVED	TOTAL (no. of farms)	ZONE I (no. of farms)	ZONE II (no. of farms)	ZONE III (no. of farms)
No crop land	22	1	1	20
1 - 50.	59	12	8	39
51 - 100.	44	18	14	12
101 - 150.	52	39	10	3
151 - 200.	34	28	6	0
201 - 250.	30	22	7	1
251 - 300.	31	30	1	0
301 - 350.	13	10	3	0
351 - 400.	9	8	1	0
401 - 450.	16	14	2	0
451 - 500.	6	5	1	0
501 - 550.	5	4	1	0
551 - 600.	1	1	0	0
601 - 650.	5	5	0	0
651 - 700.	2	2	0	0
701 - 750.	2	2	0	0
751 - 800.	1	1	0	0
801 - 850.	1	0	1	0
TOTAL.	333	202	56	75
AVERAGE ACREAGE.	180	240	161	31

TABLE V—MANNER OF FARM ACQUISITION AT TIME OF SETTLEMENT IN THE VARIOUS DISTRICTS OF PEACE RIVER

	TOTAL (no. of farms)	ZONE I (no. of farms)	ZONE II (no. of farms)	ZONE III (no. of farms)
<i>Legacy or Homestead</i>				
1910 - 1914.	103	79	24	0
1915 - 1919.	68	53	12	3
1920 - 1924.	26	10	5	11
1925 - 1929.	80	14	10	56
1930.	3	0	0	3
<i>Purchase</i>				
1910 - 1914.	12	12	0	0
1915 - 1919.	7	7	0	0
1920 - 1924.	7	5	2	0
1925 - 1929.	21	19	1	1
<i>Rented Farms.</i>	<i>5</i>	<i>3</i>	<i>1</i>	<i>1</i>
TOTAL.	332	202	55	75

TABLE VI—LAND PURCHASES IN THE VARIOUS DISTRICTS OF PEACE RIVER

DISTRICTS	TIME OF PURCHASE	NO. OF PURCHASES	COST PER ACRE								
			\$1-4.9	\$5-9.9	\$10-14.9	\$15-19.9	\$20-24.9	\$25-29.9	\$30-34.9	\$35-39.9	\$40-44.9
Zone I	1910-1914	16	13	1	1	0	1	0	0	0	0
	1915-1919	26	3	5	6	8	1	2	1	0	0
	1920-1924	26	1	7	7	5	5	1	0	0	0
	1925-1929	128	10	34	27	23	13	11	5	3	2
Zone II	1910-1914	1	1	0	0	0	0	0	0	0	0
	1915-1919	1	0	1	0	0	0	0	0	0	0
	1920-1924	9	1	5	2	1	0	0	0	0	0
	1925-1929	33	2	13	11	6	1	0	0	0	0
Zone III	1910-1914	0	0	0	0	0	0	0	0	0	0
	1915-1919	0	0	0	0	0	0	0	0	0	0
	1920-1924	1	1	0	0	0	0	0	0	0	0
	1925-1929	7	1	5	1	0	0	0	0	0	0
Totals for three Zones	1910-1914	17	14	1	1	0	1	0	0	0	0
	1915-1919	27	3	6	6	8	1	2	1	0	0
	1920-1924	36	3	12	9	6	5	1	0	0	0
	1925-1929	168	13	52	39	29	14	11	5	3	2
TOTAL...	1910-1929	248	33	71	55	43	21	14	6	3	2

TABLE VII—UTILIZATION OF IMPROVED LAND BY DISTRICTS IN PEACE RIVER AREA

Use	ALL DISTRICTS (331 farms)		ZONE I (201 farms)		ZONE II (55 farms)		ZONE III (75 farms)	
	Acres per farm	Per cent.	Acres per farm	Per cent.	Acres per farm	Per cent.	Acres per farm	Per cent.
Wheat.....	80.7	45	118.4	49	47.4	29	3.9	13
Oats.....	38.0	21	46.6	19	46.7	29	8.7	28
Other Crops	7.9	4	7.9	3	12.8	8	3.1	10
Fallow.....	27.2	15	37.2	16	26.6	17	0.9	3
Breaking.....	26.7	15	31.1	13	27.6	17	14.3	46
TOTAL.....	180.5	100	241.2	100	161.1	100	30.9	100

TABLE VIII—AVERAGE VALUE PER FARM FOR VARIOUS SIZES OF FARMS.
PEACE RIVER, 1930

SIZE OF FARM (acres)	AVERAGE TOTAL CAPITAL (dollars)	AVERAGE VALUE LAND (dollars)	AVERAGE VALUE BUILDINGS (dollars)	AVERAGE VALUE MACHINERY (dollars)	AVERAGE VALUE LIVESTOCK (dollars)
1 - 160...	3,664	2,050	495	536	583
161 - 320...	9,997	6,059	1,428	1,240	1,270
321 - 480...	13,407	8,015	1,649	2,374	1,369
481 - 640...	18,661	12,007	2,206	2,854	1,594
641 - 800...	24,632	15,508	2,354	4,217	2,553
801 - 960...	26,734	16,985	3,483	4,631	1,635
961 - 1120...	22,041	13,864	2,682	2,903	2,592
1121 and over	31,385	15,607	2,627	8,928	4,223
All reporting (330)	11,847	7,640	1,535	1,332	1,340

TABLE IX—PRESENT INDEBTEDNESS BY SIZE OF FARM IN PEACE RIVER DISTRICTS

SIZE OF FARM	ALL FARMS	ZONE I	ZONE II	ZONE III
a. Number of Farms Recording this Information				
1 - 160 acres	75	30	6	39
161 - 320 "	92	58	18	16
321 - 480 "	63	40	12	11
481 - 640 "	50	40	6	4
641 - 800 "	19	16	3	..
801 - 960 "	11	8	2	1
961 and over	13	7	6	..
TOTAL	323	199	53	71
b. Number of Farms Reporting Debt				
1 - 160 acres	44	21	1	22
161 - 320 "	65	45	14	6
321 - 480 "	46	31	7	8
481 - 640 "	43	34	6	3
641 - 800 "	17	15	2	..
801 - 960 "	10	8	2	..
961 and over	10	5	5	..
TOTAL	235	159	37	39

TABLE IX—PRESENT INDEBTEDNESS BY SIZE OF FARM IN PEACE RIVER DISTRICTS—Continued

c. Average Indebtedness for all Farms Recording this Information				
	(dollars)	(dollars)	(dollars)	(dollars)
1 - 160 acres.....	214	455	8	60
161 - 320 "	912	1,170	725	183
321 - 480 "	1,464	1,925	1,664	659
481 - 640 "	2,469	2,841	1,539	139
641 - 800 "	3,530	3,949	1,297	...
801 - 960 "	2,322	2,874	1,275	...
961 and over.....	2,822	3,471	2,064	...
Average for 323 farms recording this information.....	1,377	1,923	927	184
Average for all farms (235) reporting debt.....	1,893	2,406	1,328	335

TABLE X—NUMBER OF FARMERS RECEIVING INCOME FROM SPECIFIED SOURCES OUTSIDE THE FARM IN VARIOUS PEACE RIVER DISTRICTS

	FAIRVIEW	GRANDE PRAIRIE	BERWYN	ROLLA	FRINGE	WHOLE AREA
Total number of Farmers.....	76	67	51	52	67	313
I. Outside Labour						
Harvest.....	1	3	7	6	11	28
Road.....	9	3	4	5	4	25
Railway.....	0	0	0	0	4	4
Lumber.....	0	3	1	3	5	12
Trapping.....	0	0	0	2	6	8
Other Labour.....	11	13	8	10	34	76
All Labour.....	21	22	20	26	64	153
II. Non-Labour Sources						
Interest.....	5	3	2	2	3	15
Legacy.....	0	3	0	0	0	3
Fees.....	0	3	2	0	4	9
Rent.....	5	0	1	0	1	7
Other.....	6	8	4	7	11	36
All non-Labour Sources.....	16	17	9	9	19	70
III. Custom Work	22	16	14	11	11	74

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TABLE XI—TOTAL CASH INCOME ON 260 PEACE RIVER FARMS

INCOME SOURCE	NO. OF FARMS HAVING ITEM	AVERAGE FOR ALL FARMS (dollars)	AVERAGE FOR FARMS HAVING GIVEN ITEM (dollars)	PER CENT. OF TOTAL RECEIPTS
Crop sales.....	236	1,606	1,769	64.3
Stock sales.....	211	429	528	17.2
Livestock products.....	122	76	163	3.0
Garden products.....	70	13	47	0.5
Outside labour.....	72	75	269	5.0
Threshing.....	36	180	1,297	7.2
Custom field work.....	31	57	474	2.3
Feed grinding, sawing, trucking and other	41	62	392	2.5

TABLE XII—NUMBER AND SIZE OF FARMS IN VARIOUS DISTRICTS
PEACE RIVER, 1930

OCCUPIED ACREAGE	TOTALS FOR THREE ZONES (no. of farms)	ZONE I, (no. of farms)	ZONE II (no. of farms)	ZONE III (no. of farms)
1 - 160.....	80	31	6	43
161 - 320.....	95	60	19	16
321 - 480.....	63	40	12	11
481 - 640.....	50	40	6	4
641 - 800.....	19	16	3	0
801 - 960.....	11	8	2	1
961 - 1120.....	9	3	6	0
1121 - 1280.....	1	0	1	0
1281 - 1440.....	1	1	0	0
1441 - 1600.....	0	0	0	0
Over 1600.....	3	3	0	0
TOTAL	332	202	55	75
AVERAGE ACREAGE.	438	475	518	275

TABLE XIII—AVERAGE RECEIPTS OF 313 PEACE RIVER FARMS
(Classified According to Source)

AREA	NO. OF OPERATORS	FARM AND OTHER CASH RECEIPTS		OPERATING DEBIT		REDUCTION OF INVENTORY AND INVESTMENTS		TOTAL	
		Dollars	Per cent.	Dollars	Per Cent.	Dollars	Per cent.	Dollars	Per cent.
Zone I.....	194	2,638	97	24	1	122	2	2,784	100
Zone II.....	52	2,488	95.5	13	0.5	105	4	2,606	100
Zone III.....	67	634	86	36	5	68	9	738	100
Whole Area.....	313	2,184	94	24	1	108	5	2,316	100

TABLE XIV—AVERAGE CASH FAMILY LIVING EXPENSES PER FAMILY
(Classified According to Total Amounts and Objects of Expenditure)
PEACE RIVER, 1930

TOTAL CASH FAMILY LIVING EXPENSES (dollars)	NO. OF FAMILIES	AVERAGE NO. OF ADULT UNITS	TOTAL CASH FAMILY LIVING		HOUSE OPERA- TION AND EQUIP- MENT	AUTO	CLOTH- ING	AD- VANCE- MENT GOODS	HEALTH
			(dollars)	(dollars)					
0 - 249...	29	1.28	180	109	14	0	33	21	3
250 - 499...	76	2.02	376	216	14	8	69	53	16
500 - 749...	80	2.68	638	330	42	17	120	103	26
750 - 999...	48	2.90	876	382	90	51	149	160	44
1000 - 1249...	31	3.60	1,106	489	108	45	223	173	68
1250 - 1499...	23	3.89	1,334	529	175	65	225	228	112
1500 - 1749...	13	3.83	1,618	577	106	49	272	439	175
1750 - 1999...	8	3.84	1,878	558	253	49	311	489	218
2000 and over.	5	3.18	2,299	592	258	53	374	832	190
All groups....	313	2.67	768	344	68	28	137	143	48

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TABLE XV—INVESTMENT EXPENDITURE AND INTEREST IN SPECIFIED PEACE RIVER AREAS
(Classified According to Expenditure Items)

EXPENDITURE ITEM	WELL-SETTLED ZONE (dollars)	TRANSITION ZONE (dollars)	FRINGE ZONE (dollars)	WHOLE AREA (dollars)
A. Reinvested in farm.....	915	1,232	436	865
New buildings.....	135	118	115	128
New equipment.....	483	665	178	448
Livestock.....	63	39	107	68
Mortgage and land..	234	410	36	221
B. Outside investments.....	252	243	42	205
Life insurance.....	36	21	6	27
Stocks and bonds, loans to others...	29	54	3	27
Bank savings.....	91	135	32	86
Miscellaneous— (chiefly payment of debts).....	96	33	1	65
C. Interest.....	67	21	1	45
TOTAL.....	1,234	1,496	479	1,115
Transfer.....	572	835	175	531
Actual cash investment....	661	661	304	584
Number of farmers.....	(No.) 194	(No.) 52	(No.) 67	(No.) 313

APPENDIX C

FARM EFFICIENCY FACTORS*

Labour Income. One of the most effective methods of appraising a farmer's business is the calculation of his labour income. The labour income of the farmer is what he gets in addition to the farm products which he consumes and the use of the house he inhabits, after paying all farm expenses and after allowing himself interest at the prevailing rates on the capital invested in the farm.

The labour income is in reality only an abstraction or a paper income, but for the purposes of comparison it is regarded by farm management experts as the most legitimate basis.

The method of calculating the labour income is as follows: The total farm capital, which includes the value of land, buildings, machinery, livestock and stocks of feed, etc., on hand, is appraised at the beginning and at the end of the year. Increases in this inventory are added to cash receipts; decreases in the inventory are added to operating expenses. The total farm income then becomes cash receipts plus book inventory increases. From this amount are deducted all cash expenditures, whether for operating or on capital account, and book decreases in inventory. The difference is the net farm income or the total which the farmer has received in return for his own labour and his interest on his capital. When interest on the average capital investment at the current rate, say 6 per cent., has been deducted, the remainder is said to be the labour income, or that which is due to the farmer's labour and managerial ability.

The calculation of the average labour income is of very little value in describing the general agricultural situation in any district but the usual procedure was followed in order to discover, if possible, the forms of farm organization which seemed to give the best results as measured by this method.

Inventories at the beginning and end of the year had been recorded and while there was much difficulty in obtaining a true valuation of many items of farm property the figures given are approximately if not absolutely accurate. In all districts the inventories showed increases as follows:

TABLE XVI

DISTRICT	AVERAGE INCREASE IN INVENTORY
Fairview.....	\$303
Grande Prairie.....	\$49
Berwyn.....	\$81
Rolla.....	756
Fringe.....	346†
Average for 258 Farms.....	\$488

† This average is based on a very small number of farmers in the district, and therefore is not representative of the area.

* Prepared by Professor R. W. Murchie,

The average return on farmers' labour and capital is shown in Table XVII to be \$556. When interest on capital investment is allowed at 6 per cent., the average labour income is negative, showing that the 258 farmers made an average of \$154 less than 6 per cent. on their capital and obtained nothing for their labour on their 1929 farming operations.

Of the labour incomes of the individual farmers, 86 were found to be negative, the lowest being minus \$5,391, while 172 were found to be positive, the highest being \$3,565.

TABLE XVII—LABOUR INCOME ON 258 PEACE RIVER FARMS

	(dollars)	(dollars)
Average cash receipts.....	2,496	
Average inventory increase.....	488	2,984
Average farm expense.....	1,554	
Average capital expense.....	874	2,428
Average return to labour and capital.....	7	556
Interest on average capital at 6 per cent.		710
Average labour income.....		-154
Farmer's perquisites*.....		
Rent.....	103	
Fuel.....	27	
Farm produce.....	347	
Total farm contribution.....		477
Net return to labour and capital in cash and kind.....		1,033
Average labour earnings in cash and kind.....		323

* See Chapter VI.

Labour Earnings. In calculating the *labour income* no account is taken of certain perquisites received by the farmer and his family in the form of shelter, fuel, and food obtained on the farm. To obtain *labour earnings* these have been valued at conservative local prices and added to the income. The average value of farmers' perquisites on the 258 farms was \$477, making the average net return to labour and capital in cash and kind of \$1,033 and the average labour earnings of \$323.

Relation of Labour Income to Type of Farm Organization. Attempts were made by various procedures to discover what type or types of organization seemed to be most profitable when judged by the amount of labour income. Half-section and three-quarter-section farms both showed, on the average, positive incomes, \$51 for the half section and \$212 for the 480 acre farms. The range, however, in both cases was extremely wide, the lowest half section being minus \$2,033 and the highest, plus \$3,479, while the three-quarter-section farms ranged from minus \$4,028 to plus \$3,565. In both classes also there were more negative than positive incomes, in the ratio of approximately five to four. Thus

the size of farm could hardly be regarded as a dominant factor in success, although the three-quarter and half-section farms made the best showing. The only other factor in organization which seemed, upon analysis, to be significant, was the proportion of livestock capital to total farm capital. When the 258 farms were grouped on this basis, the only class which showed consistency was the group which had from 20 to 25 per cent. of its capital in the form of livestock. All except one of this group had positive labour incomes (the one having a negative income of \$87); the group averaged \$405. The group next above this (i.e., 25 to 30 per cent.) was evenly divided between positive and negative incomes, and averaged less than \$100 positive labour income. All other groups averaged negative incomes. This type of farm organization shows a much

TABLE XVIII—COMPARISON OF FARM CASH RECEIPTS OF 20 FARMERS HAVING HIGHEST LABOUR INCOMES WITH THOSE OF 20 FARMERS HAVING LOWEST LABOUR INCOMES IN 1929—PEACE RIVER AREA

FARM CASH RECEIPTS	20 HIGHEST LABOUR INCOMES			20 LOWEST LABOUR INCOMES		
	AVERAGE (dollars)	LOWEST (dollars)	HIGHEST (dollars)	AVERAGE (dollars)	LOWEST (dollars)	HIGHEST (dollars)
Crop sales.....	3,667	1,607	7,225	941	....	3,250
Stock sales.....	773	....	3,640	272	....	1,419
Other farm produce	155	....	1,265	56	....	336
Equipment sales...	251	....	1,500	43	....	600
Custom field work.	287	....	3,200	76	....	1,221
Outside labour....	89	....	900	27	....	288
Threshing.....	651	....	4,000	49	....	600
Trucking.....	278	....	3,000	....	....	....
All other.....	24	....	400	16	....	300
Total cash receipts.	6,174	2,507	12,674	1,479	110	3,514
Labour income....	+2,155	+1,325	+3,565	-2,909	-5,391	-1,948

greater emphasis on livestock than the average for the district or for the whole province according to the last census. Livestock in this type of farm organization had about the same importance which it had on the average throughout the province of Alberta in 1916.

Labour Incomes of Selected Farmers

It may be of some advantage to rank the farmers who according to their labour incomes would be rated high and a group of farmers who on the same basis would be rated low, and to compare them one with the other and with the average for the whole area. By this means any outstanding differences are likely to be thrown into relief. Table XVIII shows the farm cash receipts for the 20 highest and 20 lowest labour incomes. This gives an average of \$6,174 total cash receipts for the 20 best and an average of \$1,479 for the 20 poorest. In both groups the item "crop sales" is the most important. In the first group

TABLE XIX—COMPARISON OF FARM EXPENSES OF 20 FARMERS HAVING HIGHEST LABOUR INCOMES WITH THOSE OF FARMERS HAVING LOWEST LABOUR INCOMES IN 1929—PEACE RIVER AREA

EXPENSE ITEMS	20 HIGHEST LABOUR INCOMES AVERAGE EXPENSE	20 LOWEST LABOUR INCOMES AVERAGE EXPENSE
	(dollars)	(dollars)
Paid labour.....	575	440
Board of paid labour.....	145	164
Hired field work.....	112	183
Cash rent.....	...	3
Cleaning seed.....	1	*
Seed purchases.....	96	106
Formalin, etc.....	4	4
Feed purchased.....	10	56
Feed, grinding, etc.....	10	8
Equipment repairs.....	73	36
Binder twine.....	59	48
Tractor costs.....	345	250
Hired threshing.....	321	180
Board of crew.....	56	4
Separator costs.....	10	*
Automobile (farm use).....	76	73
Truck costs.....	119	21
Hauling hired.....	107	10
Other gas, oil, grease, etc.....	6	9
Blacksmith.....	20	22
Building repairs.....	13	56
Paint and painting.....	*	5
Fencing (new—repairs).....	15	35
Pasturing stock.....	3	3
Small hardware.....	22	24
Breeding fees.....	9	24
Hail insurance.....	1	*
Fire insurance.....	9	5
Taxes on real estate.....	112	147
Telephone (farm use).....	4	3
Farmers' organization, etc.....	1	1
Veterinary, medicines, etc.....	4	10
Salt, stock foods, etc.....	11	10
 Total cash expense.....	2,350	1,937
Unpaid labour.....	201	349
Board of unpaid labour.....	106	208
 ALL FARM EXPENSES.....	2,657	2,493
 Capital expenditures:		
New buildings.....	213	331
New equipment.....	1,449	489
Livestock bought.....	72	107
 TOTAL CAPITAL EXPENDITURE.....	1,734	927

* Less than one dollar

the range is from \$1,607 to \$7,225, and for the 20 lowest incomes the range is from zero to \$3,250. The average for all farms in Peace River Valley is \$1,286, this being somewhat lower than the average for 260 farms quoted in Table XI. It is of interest to note the coincidence that the lowest crop sales item in the 20 best is practically the same as the average for the 260 farms; also, that the highest crop sales item of the lowest group is below the average for the 20 best. Table XVIII further shows that in every item of cash receipts the highest labour income group is far above the average of the lowest, and the total is more than four times as great. On the other hand, the cash expenses which are shown in detail in Table XIX, differ very little, being \$2,350 for the highest income group and \$1,937 for the lowest income group. This lower figure is 82.4 per cent. of the higher figure.

TABLE XX—SIZE OF FARMS ON WHICH 20 HIGHEST AND 20 LOWEST LABOUR INCOMES WERE MADE—PEACE RIVER AREA

SIZE OF FARM (Occupied Acres)	NUMBER OF FARMS		SIZE OF FARM (Improved Acres)	NUMBER OF FARMS	
	20 HIGHEST LABOUR INCOMES	20 LOWEST LABOUR INCOMES		20 HIGHEST LABOUR INCOMES	20 LOWEST LABOUR INCOMES
1 - 160.....	..	1	1 - 100.....	..	3
161 - 320.....	8	1	101 - 200.....	3	3
321 - 480.....	4	6	201 - 300.....	6	4
481 - 640.....	1	7	301 - 400.....	3	5
641 - 800.....	3	4	401 - 500.....	2	4
801 - 960.....	1	..	501 - 600.....	..	1
961 and over....	3	1	601 - 700.....	4	..
			701 - 800.....	1	..
			801 - 900.....	1	..
TOTAL ACRES....	11,697	11,690	TOTAL ACRES.....	7,896	5,899

When, however, the cost of unpaid labour and the board of unpaid labour is included to make up the total farm expenses, the two groups are found to approximate each other still more closely, totalling in the higher group \$2,656 and in the lower group \$2,493, a difference of only \$164. It would appear from an examination of the figures on paid and unpaid labour that this labour item is one of the most important, and that it is not materially different in the higher and the lower groups. In this particular instance the labour bill including cost of board is \$134 higher for the lower income group.

The analysis of the incomes and expenditures for the 20 highest and the 20 lowest seems to be far more adequate when it is realized that the size of the farm concerned may vary from a quarter section to one and one-half sections or more. Distribution of these 40 farms is shown in Table XX, according to the number of acres occupied, and also according to the amount of improved land. It is noteworthy that in the highest group there are eight half-section farms and four three-quarter sections, and that nine of the 20 best have between 200 acres and 400 acres under the plough. In comparing the improved acreage

with the acreage occupied it is to be noted that total acreage occupied is approximately the same for both groups; the upper group has 67 per cent. of its land under the plough, while the lower group has less than 50 per cent.

It will be noted also from this table that while the size of the farm differs slightly, the total acreage occupied by the 20 highest is approximately the same as that occupied by the 20 lowest. The cash receipts even on the basis of improved acreage (Table XXI, App.) show approximately three times as much income from the 20 highest as was obtained by the 20 lowest. The expenses also are shown to be much higher per 100 acres improved on the farms that are rated low. The 20 best had a total farm expense of \$671 per 100 acres improved, while the 20 poorest had expenses of \$860. This is an increase of over 28 per cent. It would seem, therefore, that one of the important differentials is the percentage of the farm which is brought under the plough.

TABLE XXI—CASH RECEIPTS PER 100 ACRES IMPROVED LAND

SOURCE	20 FARMS WITH HIGHEST LABOUR INCOMES (dollars)	20 FARMS WITH LOWEST LABOUR INCOMES (dollars)
Crop sales	929	319
Stock sales	196	92
Farm produce	39	19
Equipment sales	64	15
Custom work	73	26
Outside labour	22	9
Threshing	165	17
Trucking	70	...
All other	6	5
TOTAL CASH RECEIPTS	1,564	502

Frequently differentials in labour incomes are explainable in terms of the personality traits of the individual operators.¹ Unfortunately, no tests were administered to the farmers in the Peace River area and such information as is available regarding their social and educational background throws no light on these human factors. For example, of the 20 highest, five had been farmers all their lives and 15 had spent some part of their lives in other gainful occupations. But the same was true of the 20 who had the lowest labour incomes. Or, again, the ages of the operators who made the best showing ranged from 30 to 62 years, with an average age of 41, while the ages of the other group ranged from 25 to 70 with an average of 46. With respect to experience in farming there was no significant difference, the highest group having 19 years experience and the lowest group approximately 21 years experience as farm operators on their own account. The factor of education was also considered, and no significant differences found. When the matter of national cultural background was examined, a very slight difference was found, favouring those

¹ Wilcox, Boss and Pond, *Relation of Variations in the Human Factor to Financial Returns in Farming* (St. Paul: Minnesota Experimental Station Bull. No. 288, 1932).

of Scottish and Norwegian extraction. There were seven Scots in the 20 highest and five in the 20 lowest. There were four Norwegians in the 20 highest, and two in the 20 lowest. When, however, the labour incomes of all the farmers in these two national groups were considered, the 80 Scots showed an average of -\\$145 as against the average for the whole of -\\$154, while the 22 Norwegians showed an average of -\\$141.

TABLE XXII—PROGRESS ON 72 HOMESTEADS
PEACE RIVER AREA

	NO. OF FARMS HAVING EACH ITEM	AVERAGE FOR THOSE HAVING ITEM	AVERAGE FOR 72 HOMESTEADS
Acres improved.....	51	26.5	18.8
Per cent. improved.....	..	10.2 (dollars)	7.2 (dollars)
Crop sales.....	11	451.73	69.01
Stock sales.....	14	188.92	36.73
Other produce.....	22	53.36	16.30
Outside labour.....	56	227.48	190.81
Custom work.....	13	192.84	34.81
Threshing.....	2	487.50	13.54
Other income.....	10	278.60	38.69
TOTAL INCOME.....	63	457.06	399.93
Acres in farm.....	72	.....	259

The Progress of Homesteaders

Before leaving the question of farm incomes, brief mention should be made of the incomes of the 72 homesteaders who had not at the time of survey obtained titles to their farms. The more important details are shown in Table XXII. The average income for the homesteaders is shown to be very small. With the exception of the crop sales, the items of wages for outside labour, custom work and threshing are apparently the most important in a homesteading area. The rate at which the homesteads are being developed may be indicated by the percentage of improved land, which for the whole group is 7.24. For those who homesteaded in 1927, the percentage improved is 12.14; for those in 1928, 7.55; and for those in 1929, only 3.00.

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